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THE AMERICAN ELEVATOR AND GRAIN TRADE.

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A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

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CAR PULLERS
OR
BELT CONVEYORS

STEPHENS-ADAMSON MFG. CO.

MANUFACTURERS OF CONVEYING AND TRANSMISSION MACHINERY
MAIN OFFICE AND WORKS, AURORA, ILL.

NEW YORK OFFICE
43 Exchange Place

CHICAGO OFFICE
First National Bank Bldg.



**Grain
Elevator
Belting**

of special construction

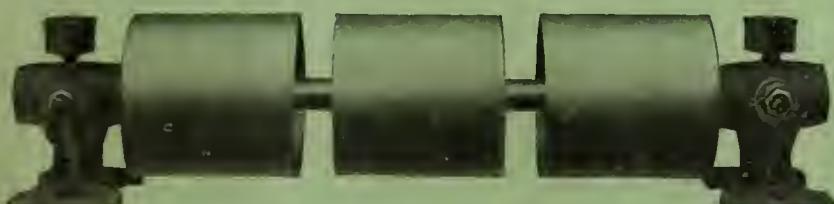
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**Get our prices
THE
GUTTA PERCHA
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MFG. CO.**

224-226 Randolph Street
CHICAGO

SKILLIN & RICHARDS MFG. CO., CHICAGO

BELT CONVEYOR ROLLS



We make eleven different types of belt conveyor outfits. All fully described in Catalog No. 7.

YOUR INQUIRIES AND ORDERS SOLICITED

GENUINE SALEM BUCKETS



We manufacture a complete line of grain elevator machinery, all fully described in general catalog No. 7. Have you a copy? One may be had for the asking.

BEST MADE

"Every Bar is Good" ONOKO BABBITT METAL
FOR
ALL MACHINERY BEARINGS
H. Channon Company
Chicago.



A PERFECT GRAIN TRYER made of seamless steel tubing with steel tip and steel thimble on top end. Wooden plug of the best dried hard maple. These Grain Tryers are made in any length required. We carry all material for making them in stock, and can furnish Tryers on very short notice. Write for prices.

WILLIAMS-LLOYD MACHINERY CO., 337-339 Dearborn St., Chicago

MURRAY IRON WORKS CO.

Incorporated Feb. 1, 1870.

BURLINGTON, IOWA



MURRAY CORLISS ENGINES—Simple and Compound—For any Service

**BOILERS: FIRE-TUBE, WATER-TUBE, FIRE-BOX,
INTERNAL-FURNACE AND VERTICAL**

MICHIGAN MILLERS Mutual Fire Insurance Co.

INSURES

FLOUR MILLS
GRAIN ELEVATORS

AND THEIR CONTENTS

Net Cash Surplus,	- - - - -	\$ 458,690.31
Losses Paid,	- - - - -	2,029,354.79

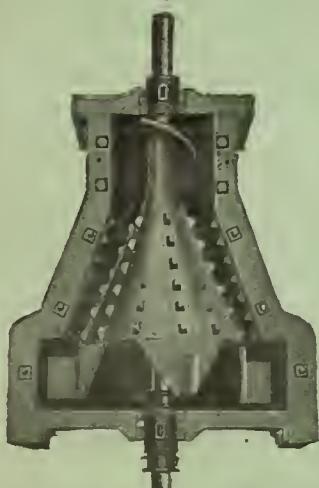
FOR FURTHER INFORMATION ADDRESS

A. D. BAKER, Secy. = - - - Lansing, Mich.

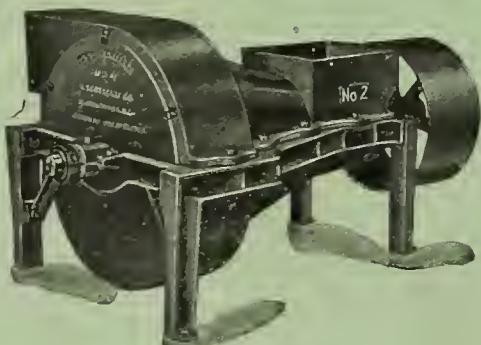
THE U. S. CORN SHELLER

Inside and

Outside



Pat.
Oct.
17th,
1905



Is the best sheller you can buy. Notice how it is put together, and what it would require to install it. Only a connecting spout to the elevator boot and the usual receiving hopper. Only a wrench and the new casting to repair it. The teeth are chilled, the fan strong, in fact, all the castings are heavy. Made in four sizes—all iron, or on wood frame, if preferred. Capacity guaranteed.

Also notice this No. 26-77 B. S. C. chain. It is tested at 2,000 pounds strain. Buy it for new and old drags. It pays.



All Orders Filled Promptly. Send for Catalog.

REPRESENTATIVES:

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B. S. CONSTANT CO., Bloomington, Ill.

AIR DRIED GRAIN (NOT KILN DRIED)

The Ellis Drier insures even and perfect drying at low temperatures. The only machine where the air passes through the grain uniformly and reaches every kernel. Built in all sizes from five bushels' capacity and up.

“Ellis Grain Drier”

—

ELLIS DRIER CO.

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Chicago



"Western" Warehouse Sheller, Style A. Five Sizes Capacities 600 to 2,500 Bu. Per Hour.

PROGRESS Improvement

See these cuts of our
New Style A Ware-
house Shellers.

Positive feed

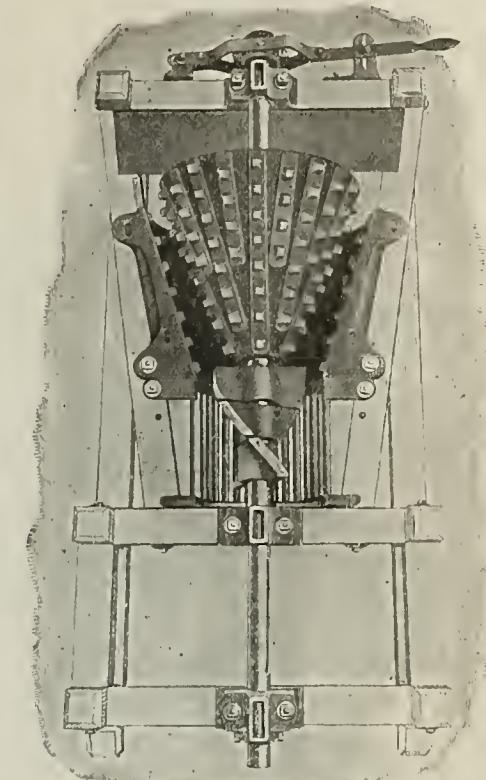
Increased capacity

MANUFACTURED SOLELY BY

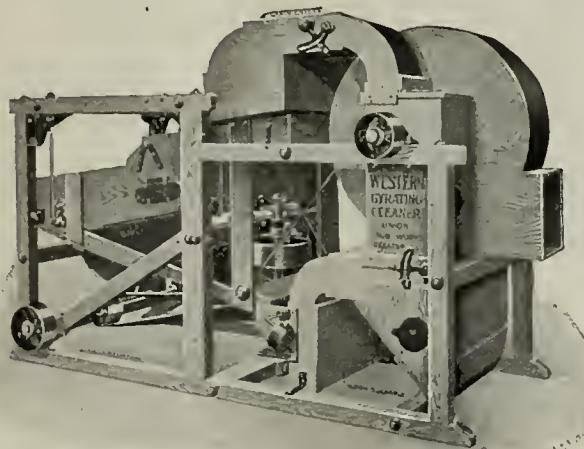
UNION IRON WORKS

Decatur, Ill.

WRITE FOR PRICES AND
DISCOUNTS



Interior View of Style A Sheller Showing
Screw Feed.



Western Gyrating Cleaner. Eight Sizes. Capacities 200 to 2,500 Bu. Per Hour.

Complete Stock Carried in Kansas City, Mo., 1221-1223 Union Avenue

Herewith a partial list of users of the Gyrating Cleaner to whom we refer without permission:

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J. L. Brainerd Grain Co., - - - - -
Brady Bros., - - - - -
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Barnett Bros., - - - - -
Farmers' Elevator Co., - - - - -
C. A. Hight & Co., - - - - -
Jones & Sheets (2), - - - - -
Logan & Co., - - - - -
Ottawa Co. Co-op. Assn., - - - - -

Ashland, Ill.
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Payne, Ohio
Palestine, Ill.
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Ransom, Ill.
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H. Prange & Son, - - - - -
S. W. Love Elevator Co., - - - - -
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FLOUR AND FEED MILL MACHINERY

STEAM AND GAS ENGINES

Pulleys, Shafting, General Power Transmission Machinery, Roll
Grinding and Corrugating

LARGEST FACTORY AND STOCK IN WESTERN COUNTRY

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GREAT WESTERN MFG. CO.

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Warehouse and Salesrooms
1221-1223 Union Ave.
KANSAS CITY, MO.

Some of the satisfied users of the F. R. Morris

Grain Driers and Conditioners

Rialto Elevator Co., 2 Driers, Milwaukee, Wis.
Milwaukee Elevator Co., 2 Driers " "
National Distilling Co. " "
G. S. Connard & Co. Elgin, Ill.
Washer Grain Co. Atchison, Kan.
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Plymouth Milling Co. Le Mars, Iowa
Chas. R. Lull. Milwaukee, Wis.
Meyers & Co. Hamburg, Germany
Fagg & Taylor, 2 Driers, Milwaukee, Wis.

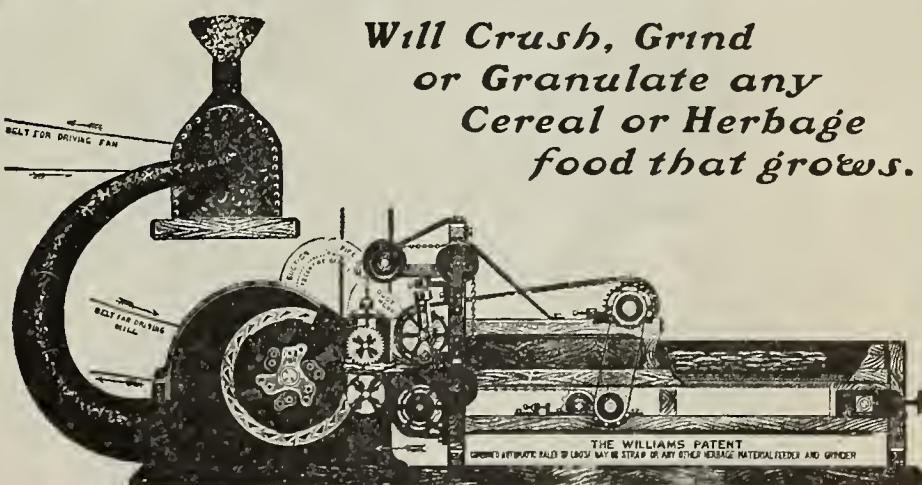
Write any or all of above users for their verdict. I am willing to abide by what they will tell you.

It takes some time to build these large driers and now is the time to place your order for a **Morris Drier**, which you will surely need to place your grain in merchantable condition. Don't wait until you lose the cost of a drier before installing one, as they pay for themselves in a few months.

F. R. MORRIS, Milwaukee, Wis.

WILLIAMS PATENT ALFALFA GRINDERS

*Will Crush, Grind
or Granulate any
Cereal or Herbage
food that grows.*



We have equipped 25 alfalfa plants, all in operation
and making a good profit.

Write for our new Stock Food Bulletin.

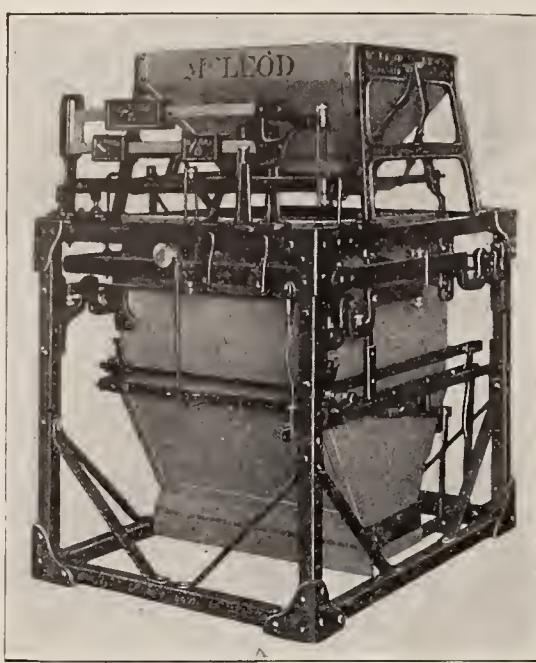
The Williams Patent Crusher & Pulverizer Co.

2705 N. Broadway
ST. LOUIS

Old Colony Building
CHICAGO

THE McLEOD AUTOMATIC SCALE

The scale that weighs



HAVE you ever seen an automatic scale choke up on light oats or straws in the grain? Of course you have, but not a McLEOD!! We guarantee them against this.

Do you want an automatic scale that can be set in one second to weigh by hand, thus testing at any stage of your work whether your grain is running uniform or varying in grade? If so, you want a McLEOD.

Factories at Bloomington, Ill., and Marietta, Kan.

NOTE—The McLeod Automatic Scale was formerly made under lease of our patents, by a company at Peru, Ill., but this lease terminated July 17, 1907, and anyone buying a McLeod Scale from any firm except ours will be liable to us for a royalty.

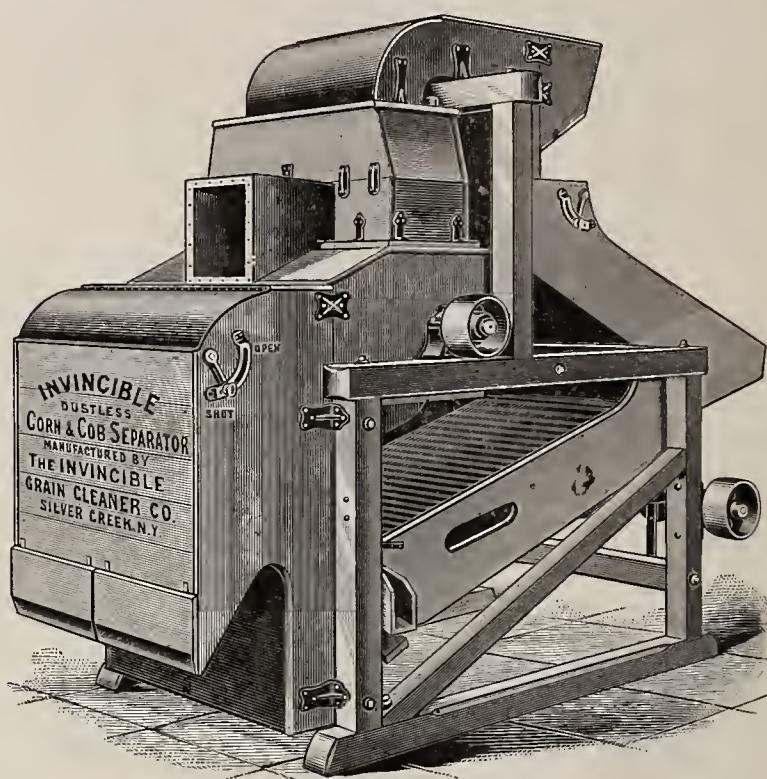
Agents wanted among grain men everywhere
For catalog and terms address

McLEOD BROS., - Bloomington, Ill.

CLEAN YOUR CORN

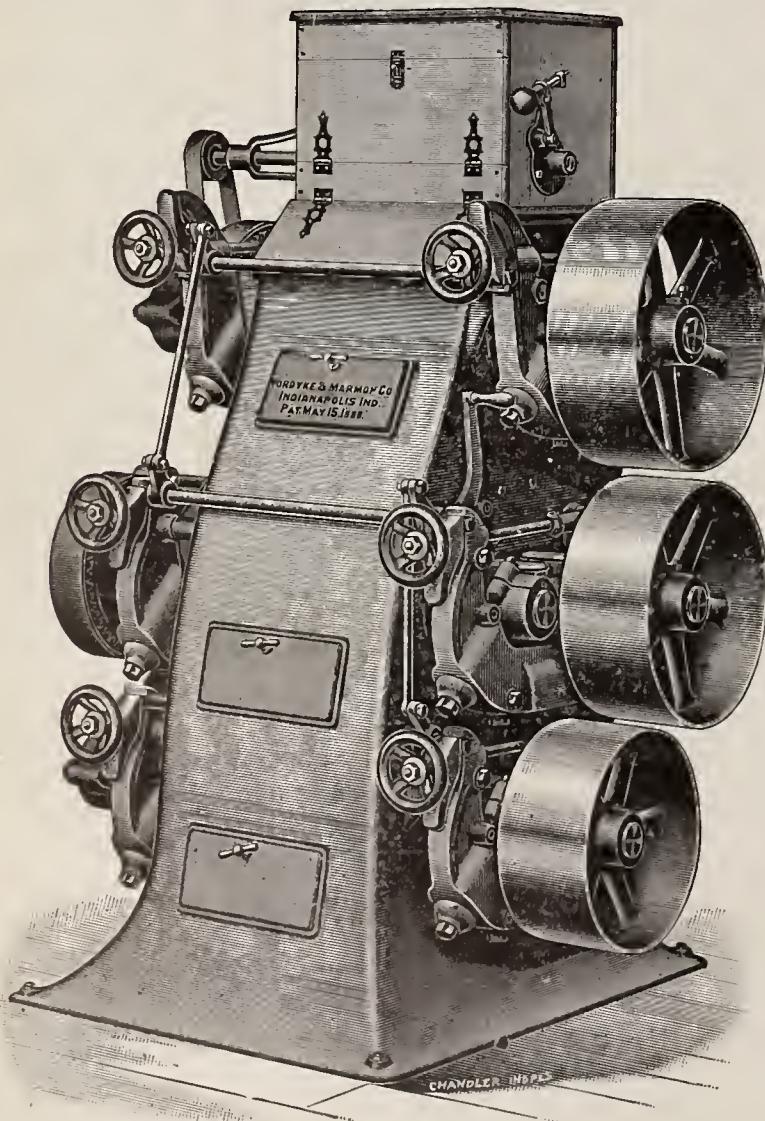
This Separator takes out cobs, silks and all foreign matter and gives a high grade of corn.

It is the most popular corn and cob separator on the market, the result of its extremely nice work. Order now.



**INVINCIBLE GRAIN CLEANER COMPANY
SILVER CREEK, N. Y., U. S. A.**

REPRESENTED BY
W. J. Scott, 512 Traders' Bldg., Chicago, Ill.
Edward A. Ordway, 225 Exchange Bldg., Kansas City, Mo.
The Strong-Scott Mfg. Co., Minneapolis, Minn.
C. L. Hogle, 526 Board of Trade, Indianapolis, Ind.
N. B. Trask, Lochiel Hotel, Harrisburg, Pa.
Portland Iron Works, Portland, Ore.



The N. & M. Co.

THREE-PAIR-HIGH SIX-ROLLER MILL

The most substantial, most economical in cost of maintenance. Has great capacity and requires comparatively small power. The only Six-Roller Mill with drive belts properly arranged to place the belt strain on bottom of bearings, where it belongs. It is not the cheapest mill in first cost, but it is by long odds the cheapest in the long run. It is without question the best roller feed mill on the market. Feed grinding pays best when you have a mill which will do perfectly any kind of grinding required and stand up under hard work without breakages and delays.

Send for Catalogue

ELEVATOR SUPPLIES

We carry a complete stock of Heads and Boots, Elevator Buckets and other Elevator Supplies. All orders are given the very best of attention.

Nordyke & Marmon Company

America's Leading Flour Mill Builders

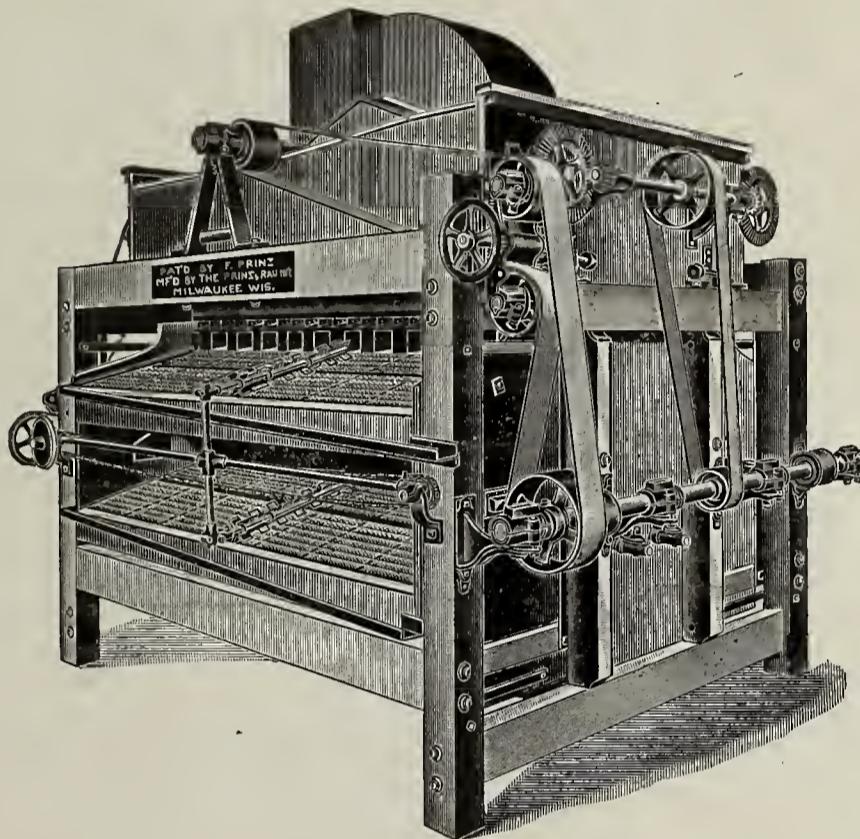
Established 1851

INDIANAPOLIS, IND.

Prinz Patented Automatic Separators

Perfect Air
and Sieve
Separations

Sieves Cleaned
Automatically by
Patented
Traveling Cleaner



Large Capacity
in Small Space

Sieves Made of
Sheet Steel
Have Long Life
Saves all the Good
Grain, Takes Out
All Impurities

Originality is the Keynote

Our Separators have many original features that place them in a class by themselves. Our **Patented Automatic Sieve Cleaner** keeps the meshes open and allows the machine to work to **guaranteed** capacity. The air separation is perfect.

“HAVE GIVEN THE BEST OF SATISFACTION”

THE PRINZ & RAU MFG. CO., Milwaukee, Wis.

Minneapolis, Minn., Nov. 13, 1907.

Gentlemen:—We take pleasure in stating that your AUTOMATIC SEPARATORS have given us the best satisfaction. In addition to the machines which we have had in operation for a number of years in our mills, we have just installed SEVEN of these in our NEW ELEVATOR. All we can ask is that these new machines give us as good results as those we have in operation.

17. W. H. B.

Yours truly,

(Signed)

WASHBURN-CROSBY CO.
By W. H. Bovey.

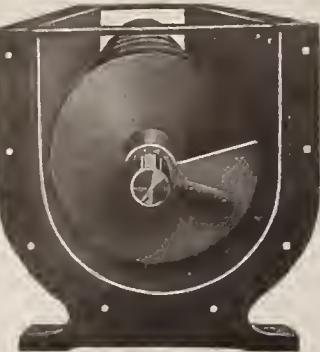
THE PRINZ & RAU MFG. CO.

Milwaukee, Wis.

REPRESENTED BY W. G. Clark, 415A La Salle Ave., Chicago, Ill.; A. H. Kirk, 1-A Chamber of Commerce, Minneapolis, Minn.; G. M. Miles, 1057 Pierce Bldg., St. Louis, Mo.; F. E. Lehman, 124 Board of Trade, Kansas City, Mo.; C. H. Near, 770 Ellicott Square, Buffalo, N. Y.; M. D. Beardslee, 106 Piquette Ave., Detroit, Mich.
EUROPEAN REPRESENTATIVES, Ingenieur Bureau, Prins Mauritsplein La, The Hague, Holland.



Section of
Old Style Flight



Section of
Helicoid Flight

HELICOID

Helicoid conveyor has a stronger flight and a heavier pipe than the same diameter of old style conveyor, and

Helicoid flight and pipe are put together so they support and strengthen each other.

Helicoid flight has a shovel edge. Other has blunt edge.

Helicoid flight is one continuous strip of metal end to end of pipe. Other is short sections lapped and riveted together every turn or half turn around the pipe.

Helicoid is a smooth, nicely-balanced spiral, and has no joints to wear out and open up.

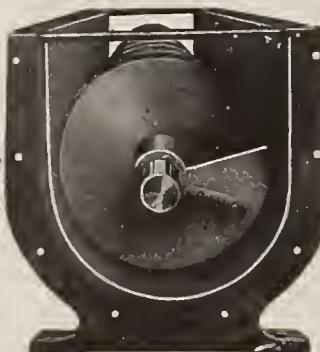
Helicoid requires fewer repairs, and less power to drive it.

Helicoid costs no more than inferior kinds of conveyor; it's all-round satisfaction at the same price.

Ask about our Steel Conveyor Boxes, too.

H. W. Caldwell & Son Co.
17th St. and Western Ave., Chicago

BRANCH OFFICE:
No. 95
Liberty St.,
New York City.



MIND THAT AMBUSHCADE

An Ambushcade Scale is one that lies in weight and is a weigh off
Buy the RICHARDSON, which never lies

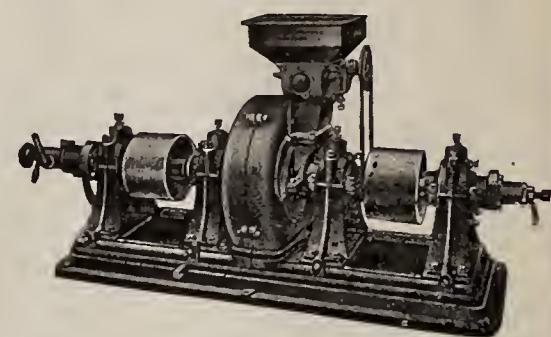
"I have tested the Automatic Elevator Scale that I purchased of you last August and find it absolutely accurate and correct. Accept thanks, as it has saved me the price in collecting shrinkage on leaking cars.
W. D. HAYS."

RICHARDSON SCALE COMPANY
7 Park Row, New York 122 Monroe Street, Chicago

YOU WILL NOT
be compelled to file claims for shortages if your cars are equipped with
THE KENNEDY CAR LINER
It positively prevents leakage of grain in transit.
Further information cheerfully furnished if desired.
FRED. W. KENNEDY, M'f'r, Shelbyville, Ind.

Monarch Attrition Mills

For The
Elevator
Man
AND
Miller



When you buy an attrition mill you want to know that you are getting your money's worth. You don't want a mill that is hard to drive and expensive to keep in repair, and you do want one that will grind feed the way your customers want it. The Monarch is the result of years of effort and study by a firm that has specialized along this line. It is the **strongest, fastest, most satisfactory** feed grinder made. It is the machine for your plant; investigate it.

OUR CATALOGUE

Gives all the information that a prospective customer can desire. It tells why the Monarch has phosphor-bronze interchangeable bearings; cable-chain oilers; double movable base; safety spring; quick release; relief spring; special adjustable endless belt drives; hammered steel shafting; ball bearings and other improvements not found in competing mills.

Mention amount and kind of power you expect to use for operating a mill

SPROUT, WALDRON & CO.

John Williams Taylor, Southwestern Agent,
491 Pacific Ave., DALLAS, TEXAS

Box 320, Muncy, Pa.



The "Eureka" Corn Dryer



Dries the grain uniformly and extracts any percentage of moisture desired.

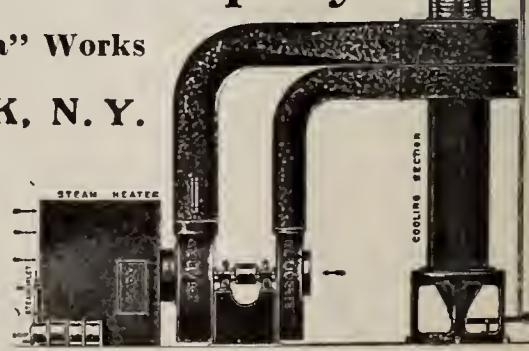
Most economical, dries continuously, inexpensive to adopt.

Built in capacities of five bushels to any quantity.

Satisfactory Results Guaranteed

The S. Howes Company

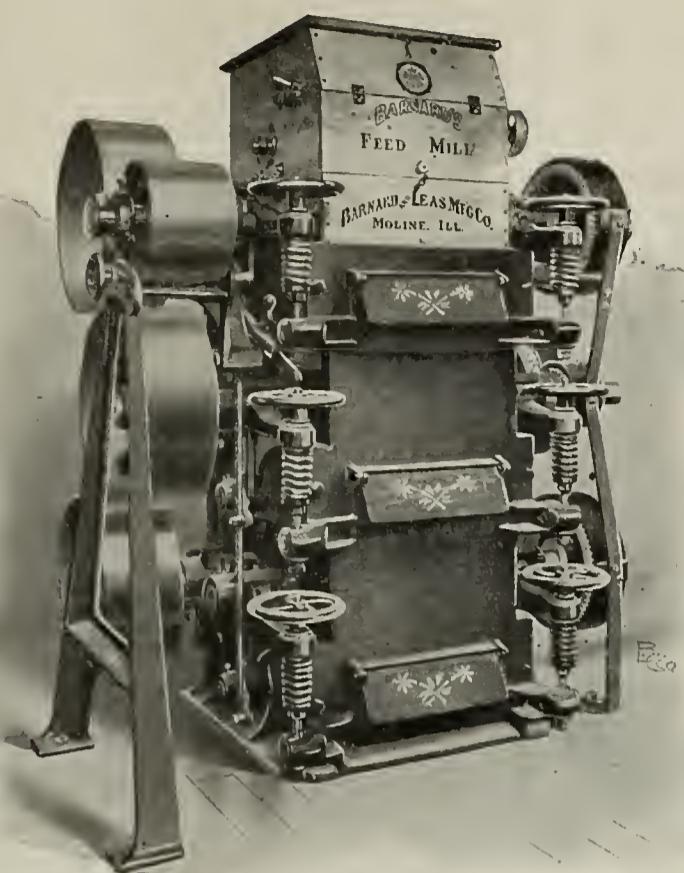
"Eureka" Works
SILVER CREEK, N. Y.



Represented by

W. E. SHERER, 309 S. Third St., Minneapolis, Minn.
J. D. MATTESEN, 309 S. Third St., Minneapolis, Minn.
J. N. BACON, Spencer House . . . Indianapolis, Ind.
GEORGE J. NOTH . . . 1329-1330 Monadnock Block, Chicago, Ill.





BARNARD'S SIX-ROLLER OR THREE-PAIR-HIGH MILL

ROLLER FEED MILLS

We make them for all purposes.

We make them for grinding all kinds of feed as well as fine table meal. Our line includes Willford's Light Running Three-Roller Mill and Barnard's One, Two and Three Pair High Mills.

We also make a complete line of Corn Shellers and Cleaners, including the Victor Corn Sheller and Cornwall Corn Cleaner.

Also Separators and Scourers of all kinds, and furnish everything needed in elevator supplies.

Send for latest circulars

BARNARD & LEAS MFG. CO.

Builders of Elevator Machinery and Supplies

MOLINE, ILLINOIS

Corn Shippers

The chances of corn heating in transit are sufficient without including broken kernels and cobs, shucks, silks and fine dirt. Clean corn that has been well shelled will stand shipping better than the dirty.

The New Marseilles Dustless Cylinder Corn Sheller is well made, stands hard work and will shell with a minimum amount of breakage of both cobs and kernels; requires little power and has a large capacity. This is the only Cylinder Sheller that does not deliver dust or dirt into the cob pile; that saves the largest percentage of the corn and that cleans both the corn and the cobs. By using this sheller and cleaner you get uniform kernels, that are free from broken bits of cobs, pieces of the husk, silks or other foreign matter.

This year corn requires careful handling; be on the safe side and use the New Marseilles Dustless Cylinder Corn Sheller and Cleaner; your corn will grade better. Made in 3 sizes from 200 to 1,800 bushels per hour.

We also manufacture a complete line of elevator machinery and supplies, and can equip your new elevator from cupola to pit. Send for catalog.

Marseilles Manufacturing Company, Marseilles, Illinois

New Marseilles Dustless CYLINDER CORN SHELLER & CLEANER

We make warehouse shellers with or without cleaning device. For handling either shucked or unshucked corn.



DEAN ENGINES

GAS-GASOLINE-ALCOHOL

We offer more real engine value for your money, larger cylinders, more power, service and satisfaction than any other manufacturers. Our catalog explains it, our guarantee confirms it and our sales prove it. Address the DEAN GAS ENGINE & FOUNDRY CO., 107 Front St. Newport, Ky.

DEAN ENGINES

GAS-GASOLINE-ALCOHOL

We appeal to the intelligence of buyers. We give the bore and stroke of our engines, tell just what is included in each equipment and guarantee to refund their money if for any reason Dean Engines fail to meet their requirements. Address the DEAN GAS ENGINE & FOUNDRY CO., 107 Front St. Newport, Ky.

WHAT YOU NEED

In Elevator Machinery and Supplies may be had on short notice, at any time, by sending your orders to us. We have the big assortments, our goods are always of the best obtainable quality and our prices as low as consistent with such quality.

We have the finest equipment in the country for doing

Roll Corrugating and Grinding

Try us once and learn what perfect work is like. Write for our Catalog and Prices.

THE STRONG-SCOTT MFG. COMPANY

Formerly Strong & Northway Mfg. Co.

N. W. Agents: Richardson Automatic Scale Co., The Invincible Grain Cleaner Co., Alsop Process Co., Dulour Bolting Cloth Co., and Knickerbocker Dust Collectors.

MINNEAPOLIS, MINN.

Johnson Grain Renovator and Dryer

This equipment will positively dry and keep cool all grain in elevators. No heat necessary; cold, dry air does the work. Manufactured and installed anywhere in the United States by

E. G. ISCH & CO.,

PEORIA, ILL.

WHY PAY CORN PRICE FOR WATER?

Get a Hess U. S. Moisture Tester. Anyone can make tests in 20 minutes. It tells you how much moisture is in the grain and thus protects you in shipping, storing or buying. Every grain man should have one. Free booklet.

THE HESS PNEUMATIC GRAIN DRIER

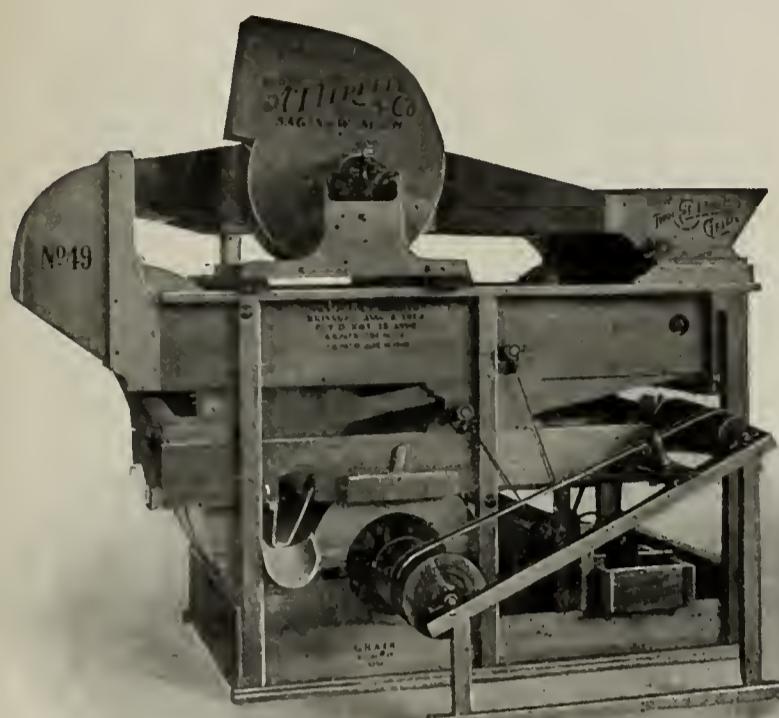
USED EVERYWHERE. You've heard of it. We have all sizes in stock and can ship quickly. There's time yet for you to insure against spoiling grain during the germinating season this spring. Ask for booklet.

HESS-DRIED CORN

Sometimes called kiln-dried (incorrectly). Made in Hess Driers and sold everywhere—here and abroad—at a premium. Keeps in all climates—germinates strongly—mills perfectly. Ask us for a list of dealers who use our driers and who will supply it.

HESS WARMING & VENTILATING COMPANY
910 Tacoma Bldg., CHICAGO

The "Clipper" Cleaners with Traveling Brushes



Our traveling Brush device is the simplest, strongest and best made. Strong fibre brushes are made to travel back and forth across the under side of the screens, thoroughly brushing them and freeing the perforations from any grain or seed with which they may become clogged, making it impossible for the meshes to fill up.

Any man who has used a Cleaner or Separator knows that the meshes or perforations in the lower screen soon become clogged so that it is necessary to "scrape" or "pound" the screen in order to clear the perforations. Our Traveling Brushes keep the screens clear all the time, and make the capacity and work of the machine uniform.

With a machine not equipped with the Traveling Brushes it is often necessary to keep one man in constant attendance when cleaning a dirty run of stock, to keep the screens clear and insure satisfactory work.

The advantages of using one of our machines equipped with Traveling Brushes is apparent: The quality of the work is improved; the capacity of the machine is increased; the cost of operation is reduced, and one has the satisfaction of knowing that he has the best that money can buy.

Catalogue with prices and full description upon application.

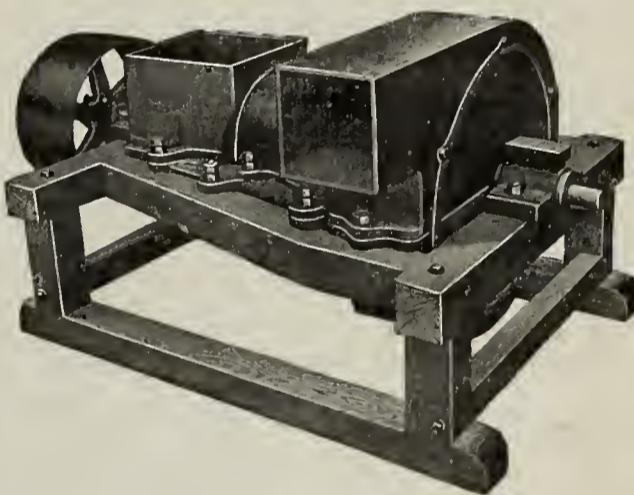
A. T. FERRELL & CO., Saginaw, Michigan

A Few of Our Bargains in Large Elevator Machinery

- 2 Barnard & Leas Dustless Elevator Separators, capacity 2,500 bushels per hour each.
- 2 Barnard & Leas Dustless Elevator Separators, capacity 2,000 bushels per hour each.
- 2 Eureka Warehouse and Elevator Separators, side shake, 1,800 bushels' capacity each.
- 1 800-bushel Improved Eureka Oat Clipper, with fan separate from clipping cylinder.
- 1 No. 5 Eureka Horizontal Oat Clipper, with shoe, capacity 600 bushels per hour.
- 2 No. 4 Barnard & Leas Oat Clippers and Warehouse Scourers, capacity 400 bushels per hour.
- 2 No. 6 Invincible Oat Clippers, capacity 800 bushels per hour.
- 1 Eureka Improved Elevator Oat Clipper, with shoe, capacity 800 bushels per hour.
- 1 No. 4 Victor Corn Sheller, 1,300 bushels per hour capacity.
- 1 No. 4 Cornwall Shaker Corn Cleaner, capacity 1,300 bushels per hour.
- 10 No. 7 Cyclone Dust Collectors, with hoods.
- 3 30-inch Webster Belt Conveyor Trippers.
- Large lot of wood and iron Rollers and Oscillating Bearings for Belt Conveyors.
- 2 Elevators, complete, with legging, 100-ft. centers, 60-in.x24-in. head pulleys, 20x6 cups, cast-iron boots.
- 2 Elevators, same size as above, 30-ft. centers.
- 2 Car Pullers, complete.
- Large lot of Power Connections, consisting of Gearing, Pulleys, both Wood and Iron, and Rope Sheaves.

These machines are all modern, have been but little used and have been well cared for. We will put them in order like new and will make a price on them that will surprise you. Write us about them.

Gump Machinery Co.
53 SOUTH CANAL ST. CHICAGO, ILL.



PATENT PENDING

The New Ohio Corn Sheller

Four ways of discharging your grain: Right and left hand, over and under.

Screw-knocker feed.

Made in sizes capacity 300 to 1,000 bus. per hour. The best made Sheller on the market.

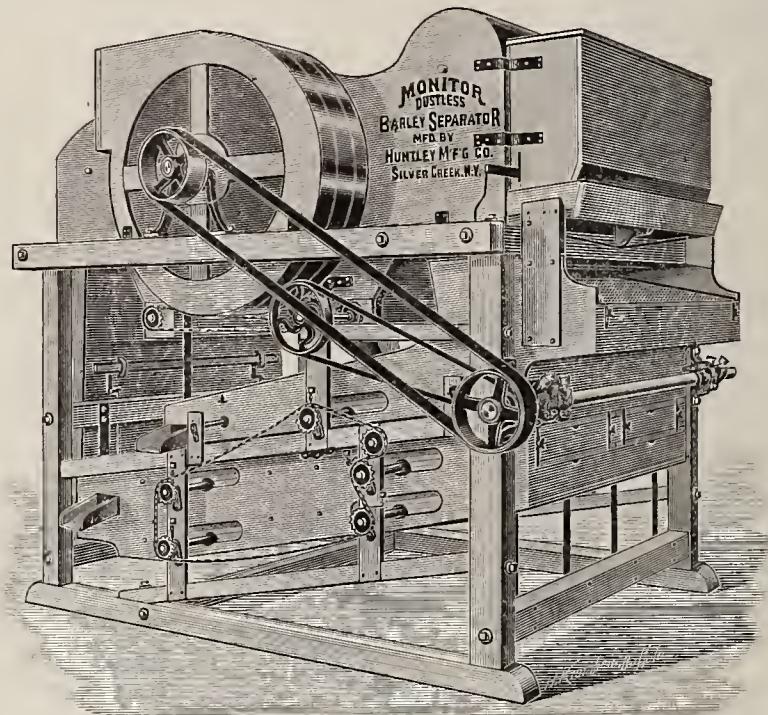
Drags, Cleaners, Passenger Elevators, Dumps, Heads, Cast Iron Boots; everything for an elevator. Write

The Philip Smith Manufacturing Co.
SIDNEY, OHIO

The Largest Handlers of Barley in Dakota, Minnesota and Wisconsin Use The

MONITOR BARLEY SEPARATOR

If you handle barley in any appreciable quantity you should use this separator.



MONITOR DUSTLESS BARLEY SEPARATOR—STYLE A—3 SIEVES DEEP.

Send to-day for special folder describing this machine, as well as list of names of users in your section.

This barley separator will do the work of cleaning dirty barley better in one operation than can be done in two or three cleanings on any other machine now on the market.

This barley separator extracts broken barley, rosebuds, thistles, wild buckwheat, wild mustard, straw joints, and weeds, and leaves the barley in the best possible shape for use or sale.

This barley separator is built in the most substantial manner.

The shaker is divided, forming a perfect balance, making the machine work steady and without vibration.

This barley separator is built in seven different sizes, and each size is rated at its minimum capacity on dirty barley right from the thresher. In addition to cleaning barley, the machine will do excellent work on other grains and at a greater capacity.

Sizes run from 150 to 1,200 bushels per hour.

Fullest details concerning this machine will be sent upon request, and every dealer handling barley should be sure to buy this machine in preference to all others. It will stand the severest tests and we stand behind it with the best kind of a guarantee.

HUNTLEY MFG. CO.

SILVER CREEK, N. Y.

BRANCH OFFICES:

302 Traders Building, Chicago, Ill., F. M. Smith, Agent
 316 318 Fourth Avenue South, Minneapolis, Minn., A. F. Shuler, Agent
 121 Front Street, New York, N. Y., W. K. Miller, Agent
 10 Board of Trade, Kansas City, Mo., H. C. Draver, Southwestern Agent

Mississippi and 17th Streets, San Francisco, Cal., Berger, Carter Co.,
 Pacific Coast Agents
 A. S. Garman, General Agent, Akron, Ohio
 S. J. McTiernan, St. Louis Agent, Terminal Hotel



THE AMERICAN ELEVATOR AND GRAIN TRADE.

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

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FEEDSTUFFS DEALERS.

Some forty members of the feed trade from New York, Pennsylvania, Illinois, Wisconsin, Indiana, Iowa and Missouri met at Buffalo on February 18 and organized an association to be known as the National Association of Feed Dealers, starting with twenty-eight charter members. This action has been contemplated by the feed dealers for several years, but has only now come to a consummation. The object is, of course, to remedy the existing evils of the trade, growing out of faulty trade rules, or the recognition of no rules whatever, and to meet the new exigencies confronting the trade growing out of the new feeding stuffs laws of the states.

The permanent officers elected are as follows. President, B. H. Morris, Oneonta, N. Y.; first vice-president, Allen Baker, St. Louis; second vice-president, S. F. Scattergood, Philadelphia; secretary-treasurer, M. C. Moore, Milwaukee; ex. com., E. C. Dryer of St. Louis, C. B. Spaulding of Chicago, J. W. Cox of Boston; directors, E. C. Dryer, A. C.

Palmer of Buffalo, C. B. Spaulding, H. L. Ames of Jamestown, N. Y., H. H. Andrews of Minneapolis, O. R. Sickert of Milwaukee, J. W. Cox, C. R. Dean of Owego, N. Y., I. S. Blish, Seymour, Ind., and J. A. Howell of Middletown, N. Y.

Committees (permanent) on transportation, trade rules, arbitration, legislation and membership were appointed. A committee on by-laws was appointed, whose draft will be the temporary working rules of the Association, subject to amendment or other ordered changes at the next general meeting. The membership fee is put at \$10, with annual dues of \$10, all members to be notified of applications for membership before the names are sent to the membership committee for action.

The trade rules prepared by Messrs. Dryer of St. Louis, Cox of Boston and C. B. Pierce of Milwaukee, in connection with the Grain Dealers' National Association, were offered for adoption, but were ordered printed and laid over for action at the next meeting, which will be held at Detroit in June two days in advance of the annual mass convention of the Millers' National Federa-

ELEVATOR AT MARLBORO.

Our illustration is a picture of a new elevator with feed mill outfit recently completed for the prosperous and energetic firm known as the Marlboro Grain Company at Marlboro, Mass. Being a distinct addition to the notable buildings of the town, and enlarging the facilities for better public service by this indispensable business concern, the people of Marlboro seem to be quite as well pleased with its completion as the owners themselves.

The building is located along side the tracks of the N. Y., N. H. & H. and B. & M. Railroads, and has storage capacity for 30,000 bushels of small grain, with shed room in addition for fifteen carloads of sacked feed. The machinery equipment includes a main elevator with elevating capacity of 1,600 bushels per hour, power shovel, receiving separator of 1,600 bushels' capacity per hour, one three-pair-high J. T. Noye Roller Mill, one 18-inch Excel Steel Mill, one Excel Corn and Oat Crusher, one Case Reel, 11 ft. 6 in.

x 32 in., for meal and cracked corn, plunger platform elevator, etc. The motive power is supplied by six Westinghouse Motors, aggregating 80 horsepower. The entire machinery equipment was furnished by L. B. Dow, millwright, 176 Federal Street, Boston.

Everything about the premises is substantially built and thoroughly modern, and the plant is considered one of the best in Massachusetts—convenient to the public and its owners and economical in operation, adding not a little to the commercial prestige of Marlboro.

The Tax Commission of Kansas will assess grain buyers the same as merchants, but the elevator operators and millers as manufacturers.



ELEVATOR AND MILL OF THE MARLBORO GRAIN COMPANY, MARLBORO, MASS.

tion. It is not improbable that the Association will affiliate with the Federation.

A quick record for loading wheat in bags at Tacoma was made on January 12 when 7,398 tons were put on board a British ship in 23 hours.

W. C. Macfadden, secretary of the North Dakota Bankers' Association, is promoting a meeting in Grand Forks for the discussion of the durum wheat situation by representatives of North Dakota commercial clubs. He says the bankers want to boost the milling interests of the state, but he thinks the millers are hardly fair in their treatment of durum wheat; and the Bankers' Association insists upon obtaining all that is possible for this kind of grain.

[For the "American Elevator and Grain Trade."]

**ACTION FOR LOSS OR DAMAGE
NOT ALWAYS MAINTAINABLE
AGAINST INITIAL CARRIER.**

BY J. L. ROSENBERGER,
Member of the Bar of Chicago and Cook County.

A car of corn was shipped from Salt Fork, Okla., to Henrietta, Texas, according to the bill of lading as follows: "From Salt Fork, Okla., to Sherman, Texas, over the St. Louis & San Francisco Railroad Co.; from Sherman, Texas, to Fort Worth, Texas, over the Houston & Texas Central Railroad Co., and from Fort Worth, Texas, to Henrietta, Texas, over the Fort Worth & Denver City Railroad Co." There was a delay in delivery, and when the car finally reached Henrietta, over the Fort Worth & Denver Railroad, it was so damaged that the consignee refused to receive it. The shipper made a claim to the Fort Worth & Denver Co., which was by that company referred to the St. Louis & San Francisco Railroad Co. and investigated by it. Finally, he brought suit against that company for the value of the corn.

The Supreme Court of Oklahoma says (appeal of St. Louis & San Francisco Railroad Co. vs. McGivney, 91 Pacific Reporter, 693) that there was absolutely no evidence in the record that in the slightest degree indicated that the corn was damaged while in transit over the defendant's road, and the fact that the car was received by a connecting line carried with it the presumption that it was in good condition when delivered by the defendant company to such connecting road. The shipper proceeded upon the theory that because the defendant company received his corn for shipment and loss occurred it was primarily liable to him, without regard to negligence on its part. Such is a mistaken theory of the law.

When a common carrier receives freight for transportation to a point beyond its line, under a contract that it will deliver it to a connecting carrier and will not be liable for damages not occurring on its own line, and the goods are received by the connecting carrier without objection, the presumption of law is that the freight was in the same condition when delivered to the connecting carrier as it was when received by the initial carrier; and if the freight is damaged when it reaches its destination, in the absence of proof, the presumption is that the damages occurred while the property was in the possession of the last carrier.

Under the law a common carrier is not bound to receive from a connecting carrier for transportation goods which are damaged, or, if it receives them, it is entitled to have the receipt given therefor, or the records of shipment, show the real condition of the goods when it received them; and the presumption is that a second carrier, or any carrier, will not receipt a former carrier for goods as being in good condition when they are already damaged. It is because of the right of a subsequent carrier to have the record speak the truth that the law, in the absence of a record or proof to the contrary, presumes that goods or freight were in good condition when received from a connecting carrier.

If a common carrier accepts freight for a place beyond its usual route, it must, unless it stipulates otherwise, deliver it at the end of its route in that direction to some other competent carrier carrying to the place of address, or connected with those who thus carry, and its liability ceases upon his making such delivery.

If freight addressed to a place beyond the usual route of the common carrier which first received it is lost or injured, the shipper may demand satisfactory information from the first carrier that the injury or loss did not occur on its line; and if such carrier fails to furnish, within a reasonable time, the proof in its possession or under its control, tending to show that it was not responsible for the injury or loss, it will be held liable

therefor, regardless of whether or not it was in fact responsible for such injury or loss.

The right of a shipper under Sec. 511 of the Statutes of Oklahoma of 1893 to demand of a first carrier proof that loss of or injury to freight addressed to a point beyond its usual route, where it has been delivered to a connecting carrier, to the effect that the loss or injury did not occur on its line, does not prohibit a shipper, in the first instance, without such demand, from bringing an action for damages for an alleged loss or injury.

In this case, a judgment obtained by the shipper is reversed, at his cost, and the cause dismissed.

**THE HEAD OF A GREAT PUBLIC
INSTITUTION.**

The Chamber of Commerce of Cincinnati is an institution which differs in its scope and methods from the Board of Trade of Chicago, or from the stock and produce exchanges of most cities. The Cincinnati body is not merely an instrumentality for the purchase and sale of commodities, but it



COL. THOS. P. EGAN,
President Cincinnati Chamber of Commerce.

stands for all the business interests of that city. Not merely dealers in grain, not merely the speculative markets, but all the solid and tangible wealth of Cincinnati is represented there. Consequently it is an honor to be appreciated by any business man to be elected president of the Chamber of Commerce of Cincinnati. And such an honor was extended on January 15 to Col. Thomas P. Egan, president of the J. A. Fay & Egan Co., the great manufacturers of woodworking machinery.

Thomas P. Egan has been a resident of Cincinnati nearly all his business life. As a boy, after leaving school, he was in the employ of dry goods houses in Hamilton, Ont., and then in Detroit, but when sixteen years old his mechanical bent led him to Cincinnati, where he secured a position in a machine shop. After a few months he changed to the firm of Steptoe, McFarlan & Co., which at that time was one of the heaviest manufacturers of woodworking machinery in the United States. He remained with them twelve years.

In 1874 he decided to begin business on his own account and with two partners opened a little shop, where at first the partners constituted the entire force. Seven years afterward, in 1881, the Egan Company was incorporated with a capital of \$150,000, with Thomas P. Egan as its president. This enterprise was successful from the first. It was located across the street from the establishment of J. A. Fay & Co., then the most important woodworking machinery establishment in the

country, of which it became a rival. The commercial battle was a warm one, and finally resulted in the consolidation of the two companies in 1893, under the style of J. A. Fay & Egan Co., of which also Mr. Egan was president.

While busily engaged in the multitudinous affairs of his own business Mr. Egan has shown the spirit of a good citizen, and has always been ready to do his share in any movement for the advancement of the city or his industry or the country. He was, for example, the organizer and first president of the National Association of Manufacturers, has promoted the export trade of the United States in machinery lines, and been active in the citizens' organization of his own city. This last testimonial to his character, so fittingly bestowed, comes as a crowning feature in the sixty-first year of his very active and useful life.

The portrait here given well depicts some of the leading characteristics of the man. Alert, aggressive, courageous, of commanding presence, he has accomplished the things that might be expected from such a personality.

WINNIPEG GRAIN EXCHANGE.

After a fight that has continued for a couple of years, at least, and which assumed an acute form a few weeks ago when the Grain Growers' Association appealed to the Manitoba parliament for "relief," the Association has succeeded in practically destroying the corporate exclusiveness of the Winnipeg Grain Exchange. The bill, which has to all intents and purposes become law for the province of Manitoba, provides substantially that—

All rules and by-laws of the Exchange must be approved by the prothonotary of the court of Kings Bench.

Any reputable person, firm or corporation must be admitted to membership in the Exchange, but shall have only one representative on the trading floor at any one time. If expelled any member may appeal to the Judge of Kings Bench.

All books and papers of the Exchange are open to the Minister of Agriculture or his appointee at any time.

No restrictions in regard to prices to be paid for grain are to be imposed upon any member of the Exchange, a provision which destroys the Exchange commission rule.

The public is to be admitted at all times to the gallery overlooking the Grain Exchange and prices are to be posted in public view as often as at least every half hour.

No seat on the Exchange may be sold for more than \$2,500 nor may any limitation be placed on a membership.

In other words, the distinctive character of the Exchange has been destroyed by throwing its privileges open to "any reputable persons" who have the price of seats, which shall "never be sold for more than \$2,500" each (sic), and which shall be unlimited in number, and which already have declined from \$2,900 to about nothing. If they are worth anything at all the owners may know; the law forbids the posting of any quotations on them.

It is a somewhat curious coincidence that on February 29, a week after the Exchange was emasculated by parliament, judgment in the appeal from the decision by Judge Phippen in the case against the members of the Exchange, Love, McHugh & Gage, was rendered, upholding the decision of Judge Phippen last May, finding all the accused not guilty. The accused were indicted at the spring assizes of 1907 on the charge that they conspired to restrain trade or commerce in relation to dealing on the Exchange, the case being brought by the Manitoba government at the instigation of the Grain Growers' Association.

There is no reason why the Exchange should go out of business; and as a matter of fact it has not done so. On the contrary, business continues as usual, says the Winnipeg Market Record, in both future and cash wheat; in fact, "the market is displaying considerably more activity than in the past; and the position of the Exchange memberships up to the present has not changed. Indeed, there may be more truth than fiction in

the rumors that the amendment has been nothing short of political wool pulled over the eyes of the grain growers. There is little probability of the Exchange leaving Winnipeg for another sphere of operations, as Winnipeg occupies the position as commercial center for not only grain but for all other products of the country. The legislation should not be taken seriously if it were not meant to be so; and we trust to see the institution flourish as it has in the past, whether with or without change, but preferably not under the ban of irresponsible government legislation. When the time comes interesting developments may be looked for."

STATUS OF THE BILLS.

The banks of Chicago on February 29 joined in issuing a protest against the bills now before Congress to prohibit trading in futures on grain exchanges. "If any such bills should be enacted," it is protested, "it would be, in our judgment, well-nigh disastrous to the commercial, agricultural and financial interests of the country. We have no hesitation in saying that this system has been and is of incalculable advantage, particularly to the agriculturist, and secures to him the unfettered operation of the law of supply and demand. It is our firm conviction that such proposed legislation would inflict on the community a loss quite out of proportion to the evils sought to be eradicated thereby. It would seriously interfere with our making loans on grain and provisions, as we would be deprived of a broad, active and constant market for these important commodities which sustain a vital relation, directly and indirectly, to our individual and commercial life."

The Chicago Association of Commerce has filed a protest at Washington to the same effect.

On March 1 the Chicago Board of Trade committee, consisting of President H. N. Sager, B. A. Eckhart, B. B. Bryan and William S. Warren, went to Washington to see the President to object to the bills. Mr. Sager presented the arguments of the trade in opposing the bills, substantially as appears in his address printed on another page. Mr. Roosevelt gave them ample latitude to express their views, and the result of the interview appears to have been satisfactory to the committee.

The committee saw also Secretary Wilson, Speaker Cannon and the senators and some of the representatives of Illinois, who assured the committee they were against any measure that would cripple the exchanges of the country.

So vigorous has been the protest that it is now predicted there will be no anti-future legislation at this session.

EARLY MATURING CORN.

The Illinois Corn Growers' Association at the late annual meeting was unanimous in the belief that the tendency of Illinois corn to mature late must be corrected by the selection and planting of early maturing seed only. It was pointed out that tests at the Illinois experiment station have shown that the low stalks of corn, bearing ears much nearer the ground, also bore corn that ripened a week or ten days earlier than that on the high stalks whose ears were much higher from the ground, while the yield of the low ears was fully equal to that of the high ears.

It was determined, therefore, that the members of the Association, in selecting seed for their own breeding plots, would hereafter choose only the low corn that ripens the first in the fall. Their corn is always chosen in the field before husking time when the early ears are shown by the dry husks, while the husks on the later ears are still green.

Many of the best practical farmers are convinced that one of the reasons for so much soft corn, aside from the general weather conditions,

is the choosing of corn for seed that ripens perhaps a month later than that which was grown here fifteen years ago, and the condition can be corrected only by the planting of earlier maturing corn.

LAWRENCE R. WALDRON.

Lawrence Root Waldron, the subject of this sketch, was born in Michigan in 1875 of hardy American stock. His early years were spent upon a farm, and after finishing at the local high school he spent three years at the North Dakota Agricultural College, from which he was graduated in 1899. Two years later he took advanced work at the University of Michigan, receiving the M. A. degree. While in college the North Dakota flora was worked over by him, and in 1900 he was the junior author of a publication listing the plants of that state, Prof. Bolley being in charge of the work. After graduation Mr. Waldron was made assistant botanist, retaining that position until he accepted his present one, being now superintendent of the Dickinson Sub-Experiment Station.



LAWRENCE R. WALDRON.

While assistant botanist he published two bulletins on the weeds and weed seeds of North Dakota and was joint author with Dr. L. Van Es of a bulletin on the stock-poisoning plants of that state. He also devised a weed-seed exhibit for the use of teachers, farmers and elevator men.

In 1895 Mr. Waldron moved to Dickinson, N. D., and commenced organizing the Sub-Experiment Station located at that point. While yet in its early stages it already enjoys the confidence of many people not wholly confined to the state of North Dakota. The station is to aid the farmer in the growth and culture of the various crops adapted to western North Dakota. The great influx of settlers within the past three years has made this work of great importance. Cereals, especially durum wheat, alfalfa, grasses and root crops are receiving particular attention. Attention is also being paid to fruits and trees. Co-operation is being carried on with the Department of Agriculture, especially along lines of semi-arid farming.

Superintendent Waldron is a life member of the Minnesota Horticultural Society, a member of the South Dakota Horticultural Society and of the American Breeders' Association as well as of other societies.

A meeting of members of the Kansas Grain Dealers' Association was held at St. Joseph, Mo., on February 20, as guests of local dealers, the object being to stimulate shipments to St. Joe.

A grain dealer at Palouse, Wash., recently shipped 150 tons of Palouse oats to Chicago, the first shipment this way for a number of years. The freight rate was about 50c a hundredweight.

[Published by Permission.]

THE ANTI-FUTURES BILLS.

BY HIRAM N. SAGER,
President of the Chicago Board of Trade.

The proposed bills, if passed, will make it a crime for any man to sell or offer to sell grain, provisions or cotton for future delivery unless he has at the time the grain, provisions or cotton in his possession, or is growing it on his farm or plantation.

Such legislation would close the great grain and cotton exchanges of the country, drive all speculative buying and selling to the European boards of trade and deprive our farmers, live stock raisers and cotton planters of the immense advantages of the broad, open, competitive markets now afforded by the exchanges, where millers, exporters, speculators and grain shippers are all bidding against each other. If trading in grain for future delivery is abolished or so restricted as to prevent speculative selling and buying, the grain crops of the country will then be sold as potatoes, hay, apples and tobacco are now sold. There will be no speculative buyer to absorb the enormous quantities of grain pressed on the markets after the harvest and carry same until demand has overtaken supply, and then grain, like hay and potatoes, will sell at ruinous prices when freely pressed on the market. The miller and exporter will have the farmer at their mercy. Why are the planters of the South to-day setting the torch to barns filled with leaf tobacco and destroying countless thousands of value? Because the open competitive tobacco market has been destroyed. They are at the mercy of the Tobacco trust. The grain and cotton raisers will be in the same position if these bills become laws. Germany tried it in 1896. The chief provision of the German law was the abolition of buying and selling agricultural produce for future delivery. The result was disastrous. There were no grain markets. The produce section of the Bourse was abandoned. There was no reliable information as to values or prices. In villages ten miles apart the price would vary tremendously. The seller was at the mercy of the buyer; and yet the buyer was justified in exacting an enormous margin of profit, as he assumed unusual risks. He, too, had no ready market to sell in or reliable quotations to guide him. The entire country suffered severely, all business was affected, particularly the farmers, until the Minister of Commerce opened negotiations for a return to the old methods; and the Produce Bourse was reopened in April, 1900. Can we not profit by Germany's costly experience?

During the reign of Edward VI. of England, in the sixteenth century, it was enacted by statutes that "whosoever shall buy corn or grain with intent to sell it again shall be reputed an unlawful engrosser, and shall for the first fault suffer two months' imprisonment and forfeit the value of the corn; for the second offense, suffer six months' imprisonment and forfeit double the value; and for the third, be set in the pillory and suffer imprisonment during the king's pleasure and forfeit all his goods and chattels."

As late as the year 1800 a man by the name of Rusby was indicted under the common law of England and convicted of the crime of regrating, that is, selling a quantity of corn in the same market in which he had purchased it, at an advance in price. Compare the above absurd efforts of the German and English governments to restrict speculative dealing in grain with the deliberate judgment of the Supreme Court of the United States. In the decision of May 8, 1905, giving a sweeping verdict in favor of the Chicago Board of Trade, the Supreme Court said:

"This chamber of commerce is, in the first place, a great market, where, through its eighteen hundred members, is transacted a large part of the grain and provision business of the world. Of course, in a modern market contracts are not confined to sales for immediate delivery. People will endeavor to forecast the future and to make agree-

ments according to their prophecy. Speculation of this kind by competent men is the self-adjustment of society to the probable. Its value is well known as a means of avoiding or mitigating catastrophes, equalizing prices and providing for periods of want. It is true that the success of the strong induces imitation by the weak, and that incompetent persons bring themselves to ruin by undertaking to speculate in their turn. But legislatures and courts generally have recognized that the natural evolutions of a complex society are to be touched only with a very cautious hand, and that such coarse attempts at a remedy for the waste incident to every social function as a simple prohibition and laws to stop its being are harmful and vain."

Judge Grosscup also, of the United States Circuit Court, giving a decision in a case (88 Fed. 868) relating to the legitimate established boards of trade, said:

"They balance like the governor of an engine the otherwise erratic course of prices. They focus intelligence from all lands and the prospects for the whole year by bringing together minds trained to weigh such intelligence and to forecast the prospects. They tend to steady the markets more nearly to their right level than if left to chance and unhindered manipulation."

Under the laws proposed it would be a crime for a grain merchant to offer to sell grain to New England or to Europe unless he actually had all the grain so offered in his possession or control at the time of the offer.

None of the proposed laws forbid future delivery sales except in cotton, grain and provisions; such contracts, however, are innumerable and of daily occurrence in real estate, manufacturing and commerce everywhere. Such laws will, therefore, be vulnerable in the courts. But our country's commerce will meanwhile be injured in a vital part by the mere enactment of such laws. The free marketing of the crops of 1907 under the present method saved the country recently from actual panic. Despite the frightful shrinkage in the values of other property, farmers sold their crops at high prices because of speculative buying based upon the future delivery sale system.

Business enterprise inevitably involves speculation. Such speculation is utterly distinct from gambling. It differs in no moral quality from the speculation entered into by the jobber who accumulates silks or woolens or any other commodity in preparation for an estimated future demand, or from the business judgment used by the contractor who agrees to deliver a great building or warship at a given price. The former buys on his estimate of future values; the latter agrees to sell short on his best judgment of the future cost of materials and labor. No branch of business can be broadly conducted without the element of speculation.

Most important, however, to the prosperous progress of a country with a large agrarian population is that character of speculative enterprise which enables the product of the soil to be marketed at the will of the producer at prices in line with the estimates of statisticians as to the average year's value. Based on hedging sales, made possible by the great exchanges of the country, buyers in country districts are able to pay prices figured closely to terminal markets, allowing for the items of freight, handling and a small margin. Prior to the existence of these exchanges, prices paid by buyers were far out of line, and the producer frequently suffered from a cash market temporarily dull or supplies temporarily large at distributing points, either of which conditions, lacking a speculative market, were enough to cut down obtainable prices in country districts from 10 to 25 per cent.

A recent illustration of this situation has been had in the barley markets, in which commodity there is practically no speculative trading for future delivery, and prices for which have fluctuated frequently from 20 cents to 30 cents a bushel; while wheat, corn and oats experienced but slight fluctuation comparatively. No market can be broadly maintained without both buyers and sellers

who are able and willing to make future contracts based upon their views of future values.

A return to the conditions prevailing during the middle of the last century through the elimination of exchanges would tend to throw the grain business of the country into the hands of monopolies which would gather to themselves the higher capitalized concerns engaged in the grain business, and such monopolies would not only be able but would force be obliged to buy at such wide margins that their hazard of carrying large quantities of grain from the season of greatest plenty to the season of greatest scarcity would be minimized, and, under such conditions, much of the money now distributed through farming districts by means of full prices paid producers would accumulate in the coffers of the rich.

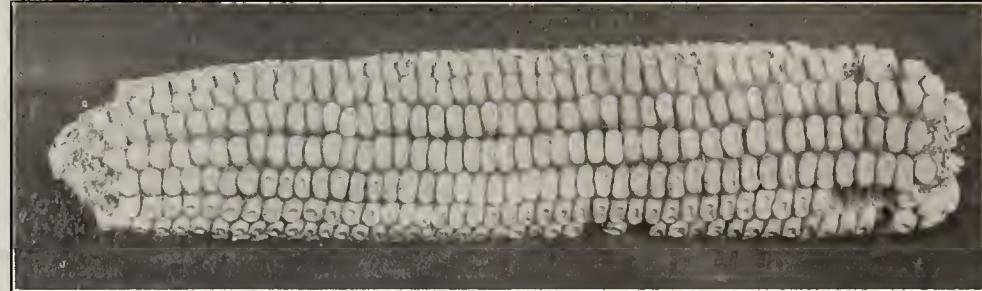
In the few months succeeding the grain harvest the country sends to market the requirements of consumption for a long period; an enormous surplus is stored in sight. Somebody must carry this load. Two classes do this: First, the farmers carry a large part of the crop for varying periods; second, the skilled judges of values on the various exchanges and their following carry that part which the farmers do not choose to hold. If such a custom did not exist, we should be confronted annually with two hurtful extremes of value. First, immediately succeeding the harvest, prices would, in the face of a present oversupply, fall to values below

less willing to furnish the funds to finance the crop movement, as grain collateral would in such event be regarded as less desirable security for loans.

The exchanges, with their facilities for ascertaining crop promise at home, on one hand, and foreign needs on the other, enable their members to make contracts with the producers from whom they buy, and with the consumers to whom they sell. The whole business is based on future contracts. Back of these contracts stands the exchange with its iron-clad rules offering a guarantee to all the world that the contracts of its members will be faithfully met.

If future contracts underlie the commercial world, it is difficult to see how lawmakers can interfere with their operations on legally and honorably conducted exchanges without running foul of the constitutional provision against class legislation. The problem which confronts the trade and Congress is how to do away with the parasites and their vicious and harmful abuses of grain and cotton contracts without crippling the enormous business depending on legitimate transactions based on future contracts.

President Roosevelt in his recent message to Congress voiced the sentiment of every member of the legitimate exchanges of the country when he said, "The great bulk of the business transacted on the exchanges is not only legitimate but is necessary to the working of our modern industrial



CORN FIFTY YEARS OF AGE.

the cost of profitable production; later on, however, just before the following harvest, supplies would be exhausted, an eager consumptive demand would then find no adequate supply, and as a result values would leap upward to figures distressing to the poor and burdensome to the rich. Consequently, speculation, merely another name for the act of adjusting supplies to requirements, gradually bringing prices, as it does, from one condition to meet another, is of the utmost importance. Speculation then is a natural and legitimate outgrowth of the great system that has been perfected for the marketing of our crops. It is a moderator, checking the greed of holders and placing a firm hand of restraint upon the exactions of buyers. It broadens the market; it makes world conditions the measure of values. It preserves an equilibrium that could be maintained through no other agency, and as carried on under the legal restrictions and judicious regulations of the great exchanges it is a factor conducive to the general welfare.

An industrial commission of five United States Senators, five Representatives and nine other leading men of the country spent three years' time following the special Act of Congress of June 18, 1898, investigating this entire subject. With unlimited opportunity, in point of time, and the power to subpoena witnesses and to visit all sections of the country, this Commission, after its investigation into the methods employed to distribute the surplus crops of the country, unreservedly took the ground that future trading is in the interest of the farmer. The report was concurred in by every member of the Commission and was signed by the chairman, the late Senator Kyle of South Dakota, who was originally a strong Granger and a Populist, but who had been convinced that the old crusade against boards of trade and cotton exchanges was a mistake.

If the present safe methods of hedging purchases of grain with sales for future delivery is interfered with the banks will unquestionably be

system, and extreme care would have to be taken not to interfere with this business in doing away with the bucket-shop type of operations."

FIFTY YEARS OF AGE.

It is not often that an ear of corn has a chance to celebrate its semi-centennial. Such an honor, however, must be tendered the ear of corn which is shown in the illustration. It was raised on a farm in Iowa in Appanoose County in 1858 and, therefore, in this year will pass its fifty-eight mark and be in consequence entitled to a due amount of consideration.

The owner of the ear of corn is George D. Chason, with F. E. Winans, grain and seed merchant at 6 Sherman Street, Chicago. It was presented to Mr. Chason by his friend, R. M. Hicks, who was the administrator of the estate of David Pence, who raised the corn with his first Iowa crop. It had lain in his crib until about eight years ago.

The corn is fairly well preserved, but is dried out and very light. Several of the kernels were used to see if they would grow, but they would not germinate. It differs somewhat from the corn of the present time, as the cob is very large and the grain small, by comparison.

The Corn Products Co., which distributed a large sum to its customers as "profit-sharing" bonus for 1907, agrees to return as profit to the buyer, on December 31, 1908, "15 cents per 100 lbs. of the total amount of glucose and grape sugar which we have shipped to you during the year 1908, upon condition that you or your successors shall purchase exclusively from this company or its successors all of the glucose and grape sugar handled by you during the year 1909, and shall have paid in full all invoices covering the same. This profit-sharing cannot be anticipated by deducting from invoices, but is only payable by this company's checks after those invoices are settled in full."

MILTON F. WILLIAMS.

Among the veterans of the trade in crushers and pulverizers of all sorts none is better known in this country than Milton F. Williams, head of the Williams Patent Crusher & Pulverizer Co., Inc., of St. Louis. Mr. Williams is a pioneer in more senses than one. Born in Belmont County, Ohio, on October 13, 1846, in a log cabin in the woods, his first recollections are of a schoolhouse built of logs, having a puncheon floor, seats made of the same material, and no desks of any character. Five years later the family moved to Monroe County, upon the Ohio River, where his father and two brothers purchased mill property and constructed an old-fashioned grist and saw mill, and attached a carding factory for wool, a dry house for lumber, and operated a small store for about five years.

During this time the writer attended school during the winter season in a small country town, then known as Baresville, but now called Hannibal, Ohio. During the construction of the mill one of the brothers met with an accident by falling from the building, which almost brought him to death's door. It, therefore, became necessary for him to retire from the firm, and in so doing he sold his interest out to another party, who claimed to be a business man, and the two remaining brothers installed this third party as cashier and bookkeeper. In about two years' time this interesting individual had wrecked the firm, and all had to go into bankruptcy, the said third party being landed in the penitentiary for counterfeiting. The younger brother of the firm, who had partially regained his health, went to school and himself afterward taught school, and later resumed his trade as a millwright.

After losing their property, the family returned to Belmont County, and out of the wreck saved enough to buy a small piece of land, where the homestead now remains, near Bridgeport, Ohio. Milton F. Williams worked at odd jobs to help the family along at almost anything he could get to do; and during this time, as the Civil War had begun, one of the neighbors, being drafted, called upon the family to run his farm during his absence, and so Milton F. Williams became a farmer for a few years. When the war was over, being tired of farming, he learned the trade of millwright with one of his uncles, serving his apprenticeship at mill building in Ohio, Pennsylvania and West Virginia.

In 1869 he left Ohio and started westward to grow up with the country, and finally located at Muscatine, Iowa, for two seasons. Afterward he emigrated to Kansas, and in October, 1872, left that state for St. Louis, where he was engaged at work at his trade as a millwright until January 1, 1875, at which date he entered into copartnership in the millwright business with one Wm. H. Forman (now deceased) and remained with him for five years. Up to this time he had accumulated a small home worth \$3,000. In the winter of 1873, he procured a position as a millwright in Staunton, Ill., to assist in rebuilding a mill, and while there became very much enamored with a curly-haired girl wearing short dresses, an attachment which three years later resulted in marriage.

The firm of Forman & Williams existed for five years. Mr. Williams then sold his interest to Mr. Forman, and began contracting millwright work upon his own account. However, during the copartnership of Forman & Williams, he had invented and patented a middlings purifier, of which machine they built a number, being finally enjoined by the La Croix Middlings Purifier Co. of Indianapolis, and in the way of a compromise they quit building said machine and Mr. Williams went on the road for one year, selling the La Croix Purifier for the company named. Becoming tired of the monotony of travel he again engaged in millwright work upon his own account and for

others, and in 1883 located in the same business at 311 Convent Street, St. Louis.

Mr. Williams remained at that place for five years, and upon February 6, 1886, entered into a copartnership with one Wm. H. Reinhardt, in the general machine business. In order to obtain \$1,000 to match his \$1,000, their capital stock, it became necessary to mortgage the Williams home at 2815 Bacon Street, which \$1,000 was practically the nest egg on which he started, and on which he paid interest until he had paid \$1,200 in interest; but during that period, and after ten months of said copartnership, Mr. Williams bought out the interest of Reinhardt. He then operated alone until the year 1891, when he moved to the company's present quarters, at 2705 North Broadway.

During this time Mr. Williams' three sons—Milton J. Williams, now and since 1900 located in Chicago, as eastern representative, who handles the territory east of the Mississippi River, including Canada; Arthur F. Williams, his second son, who handles the Middle West territory in selling the products; and Oliver J. Williams, who represents the firm on the Pacific Coast, including Mexico and Alaska—had grown up, and became engaged in the business with their father. During



MILTON F. WILLIAMS.

this time he branched out into the manufacture of dry-press brick machinery and appliances, which led Mr. Williams to invent a pulverizer for grinding clays and shales, which machine the company is now manufacturing.

After building this latter machine for one year, Mr. Williams saw that it would be necessary to have more money in the business, whereupon he incorporated in Missouri the M. F. Williams Mfg. Co., including his sons, for \$50,000, all fully paid. Previous to this time it had been found necessary to incorporate the Williams Patent Crusher and Pulverizer Company. As Mr. Williams was president of both companies, it was found that the two companies complicated business considerably; so, on May 1, 1906, they consolidated both companies into one, known as the Williams Patent Crusher and Pulverizer Company, and increased capital stock from \$16,000, which was the Crusher Company's capital originally, to \$225,000, all fully paid.

Having now over 1,300 of their crushers, pulverizers, granulators and shredders distributed over the United States and in twenty-two foreign countries, and having displayed to the world a principle that never was known before, and having now acquired ninety-five patents on this unique principle, with a number of applications in the office and several others ready to file, Mr. Williams feels that after he shall have passed beyond the Great Divide he will have been the means of handing down to the world a principle which will live long after he is gone and become universally adopted all over the world as the maximum of power in a grinding machine.

The company has just issued its first edition of a catalogue dedicated to the feed men, one among many other editions upon different sub-

jects. Their machines are employed in over 200 different classes of manufacture; and Mr. Williams, being now over 61 years of age, strong and vigorous, pulling down the scales at 200 pounds, feels that he has just commenced "to receive light and to live," and, as their business is constantly growing, they propose to make it the greatest crusher manufacturing business in the world. The company maintains at its plant a complete laboratory and experimental station and has callers from all parts of the Union to see them test material. The company's claim is: "Where others fail, we just begin."

ELKINS LAW SUSTAINED.

The Supreme Court of the U. S. has sustained the decision of the U. S. District Court of Minnesota that the Elkins law, prohibiting rebates to railroads, was not repealed by the Hepburn act. The fine administered by the court in the case at bar was \$1,000 on each of fifteen different violations of the Elkins act.

The alleged offenses were committed by the G. N. Ry. Co. during 1905, and consisted in granting concessions to the W. P. Devereux Company on its shipments of oats and corn from Minneapolis to points in Washington. The G. N. Ry. Co. admitted the concessions, but resisted the prosecution on the ground that by amending the Elkins act so as to provide for punishment by imprisonment rather than by fines the Hepburn law had so modified the original law as to accomplish its repeal and render punishment under it impracticable. The decision does not agree with that view, as it affirmed the opposite ruling taken by the District Court and the United States Circuit Court of Appeals.

Justice White, author of the opinion, said that the effect of the Hepburn law in repealing the Elkins act must be considered in the light of Sec. 18, Revised Statutes, which provides that the repeal of any statute shall not have the effect of releasing any penalty or liability incurred under the statute repealed. He said it was clear that the mere repeal of conflicting laws is in no way repugnant to that statute, and there could be no contention that standing alone the act had the result of destroying the effect of Sec. 13. Quoting Sec. 107 of the Hepburn Act, which provides that the act shall not affect "cases pending in the courts," Justice White said:

"The difficulty of construction, if any, arises from the words following the general repealing clause: 'But the amendments herein provided for shall not affect causes now pending in the courts of the United States, but such causes shall be prosecuted to conclusion in the manner heretofore provided by law.'

"These words, we think, do not, expressly or by fair implication, conflict with the general rule established by Sec. 13, Revised Statutes, since, by their very terms, they are concerned with the application of proceedings pending in the courts of the United States of the new methods of procedure created by the Hepburn law. Any other construction would necessitate expunging the words 'shall be prosecuted to a conclusion in the manner heretofore provided by law.'

"This follows, because if it were to be held that the intent and object of the lawmaker in dealing with cases 'pending in the courts of the United States' was solely to depart, as to all but such pending cases, from the general rule of Revised Statutes (Sec. 13), then the provision as to future proceedings would be unnecessary because the old and unrepealed, as well as the newly enacted, remedies would be applicable, as far as pertinent to such pending causes."

The grain market does but two things; it advances and it lowers prices. It does one directly after it has done the other, and the greater the extreme to which it has done either, the more quickly and surely it will do the other. From

the foundation of the Board of Trade there is no record of prices to disprove this. Alternate reversal in the direction of prices is the surest thing to depend on. The up and down runs of the grain markets for years prove this.—Quoted by E. W. Wagner from "Grain Speculation Not a Fine Art."

NEW ELEVATOR AT MEMPHIS.

The city of Memphis as a gateway to the Southeast is growing continuously in importance, and particularly in grain finds it necessary to make not infrequent additions to its storage and especially its handling capacity. The elevator shown in the picture, an 80,000-bushel plant, is the latest addition to the grain houses, and has been built for John Wade & Sons.

It is an iron-clad frame building, standing on concrete foundations and having metal roofing. Adjoining the elevator is an iron-clad frame warehouse, 50x100 feet, with cement floor and

There is one B. S. Constant Manlift. On the working floor there are two Fairbanks-Morse Portable Sacking Scales.

This elevator and warehouse are now completed and in operation. The plant was constructed at a total cost of \$25,000 and was built by the contractor for the net cost plus a stipulated sum for plans and specifications and for engineering and furnishing of tools.

The important features of the plant are the large capacity of the machinery and its rapid handling capacity; its steel bin bottom hoppers and metal discharges, with metal spouting, and the substantial millwright work in the installation of machinery; the neatness and strength of design in the several motor drives, and the rapid construction of the plant, ground being broken on December 12, the first concrete laid December 26, and the building enclosed thirty-five working days thereafter.

While this is not the largest elevator in Mem-



JOHN WADE & SONS' ELEVATOR AT MEMPHIS, TENN.

trussed roof. The elevator stands on the owners' property at Virginia Avenue and the Illinois Central Railroad, and was planned and erected by Fred Friedline, architect and engineer of Chicago.

The machinery equipment of the plant is as follows: Two receiving sinks, one under each of the two elevator tracks, each sink having a holding capacity of 1,000 bushels, and discharging onto a 36-inch belt conveyor, which carries the grain to the main elevator leg. This elevator is equipped with a 7-foot head pulley, and on the elevator belt there are two rows of 12x7-inch cups. This elevator leg is driven by a 50-horse-power Westinghouse Three-Phase Induction Motor.

The other elevator legs in the house are, one clipper leg, having 14x7 cups; one cleaning leg, 16x7-inch cups; one chop leg, 12x6-inch cups, and one screening leg, 8x5-inch cups. There is one 10x36 Nordyke & Marmon Double Roller Mill for grinding corn chops, one No. 10 double receiving separator and one No. 9 clipper. These machines and their respective elevator legs, being grouped and driven with separate electric motors, make it possible to perform the operation of cleaning or clipping or grinding separately with a minimum expense of operating.

In the cupola there are three garners, one of 1,000 bushels' capacity and two of 500 bushels' capacity. Underneath is a scale hopper having a capacity of 2,600 cubic feet, the scale being a 100,000-pound Fairbanks, with recording beam.

phs it is the best equipped and constructed and was built in the shortest time.

COLORADO GRAIN DEALERS.

The Colorado Grain Dealers met at Denver in February and reorganized the Colorado Grain Dealers' Association, the former organization of that name having been allowed to fall into a state of "innocuous desuetude." There were about 50 grain dealers, millers and flour men present. They were entertained at dinner by the Denver Traffic Club, after which the following officers were elected for the revivified association:

Geo. A. Ady, president, Denver; Albert Wright, vice-president, Denver; T. S. Savage, second vice-president, Denver; Geo. S. Clayton, secretary, Denver; Thos. Jameson, treasurer, Trinidad; directors in addition to the above officers—J. Moore of Fort Collins and W. J. Upson of Colorado Springs.

One immediate object of the Association is to secure the creation of a system of state weighing and inspection of grain, in order to remove the disputes now arising between shippers and receivers, each of whom inspects his grain and claims settlement on the basis of such inspections, which frequently are different.

The principle of reciprocal demurrage also will be taken up with the railroads.

Little Rock, in 1907, handled 4,050,000 bushels of wheat, 1,411,000 of corn and 75,000 of oats.

[For the "American Elevator and Grain Trade."]

TRADE AND CROP CONDITIONS IN OHIO.

BY H. L. SPOHN.

Conditions in the grain business have been fairly satisfactory recently, notwithstanding the fact that several of the largest elevators have for the second time recently been put out of business by the high water in the Maumee. The recent high prices of wheat have resulted in bringing out of hiding a considerable amount which for some time has been stored in small country elevators awaiting an advance of the market. The millers are no longer experiencing any difficulty in securing all the wheat that they need and some report that they are receiving more than they can conveniently handle.

The advance in the price of corn has resulted in bringing in the odds and ends of the crop from all over this section. Farmers are selling all kinds of grain much more freely than they have for some time. The receipts of oats have been on the increase, and its perfect quality has furnished an eager market for all that was to be had. There has been no exporting of grain from this point recently, as all markets are decidedly out of line for export business. Cash wheat as well as May delivery is now selling around the dollar mark.

The growing crop is now past all danger and is in a healthy condition. The plants are not as large or well rooted as usual, owing to late seeding, but taken all together present a fair promise of an average yield.

Clover seed, on March 9, reached in Toledo the highest point since the period shortly after the Civil War, being quoted at \$12.10. Toledo dealers say there will be a famine in the local markets unless something turns up to increase the supply. Stocks decreased this week 2,500 bags, leaving only 5,000 bags on hand, or scarcely enough at the present rate of sales to last two weeks. The demand is very urgent from the warmer states, and the season for planting is expected to continue six weeks. Prominent dealers are predicting that cash clover seed will go to \$15. There are still many farmers to be supplied and prices seem bound to advance.

A delegation of Toledo grain dealers visited the legislature at Columbus recently, where they went to oppose the Shuler bucket-shop bill, which it is claimed will put out of business many reputable commission houses, if passed. Among those who appeared before the house committee was Frank I. King of Toledo. [His address is printed on another page.]

The city officials of Toledo are now mixed up in a squabble which the Circuit Court has been called upon to decide. The difficulty occurred when the board of public service sought to pay for a carload of oats purchased from the Paddock-Hodge Co. for use in various city departments. The auditor refused to cash the warrant, claiming that the sale was illegal because it exceeded the limit of expenditure authorized without calling for competitive bids. Although the warrants were drawn on separate funds in various amounts, none of which in itself exceeded the limit, the auditor maintained that the drawing of separate warrants was an evasion of the law; and he refused, even under advice of the city solicitor, to pay the bill out of public funds. The solicitor, thereupon, filed an application for a writ of mandamus to enforce payment, and the matter is now pending in the Circuit Court, where it will have a hearing in a short time. The result is being watched for with more than passing interest by local grain dealers.

Upon complaint of a woman restaurant keeper that she had been robbed of \$45, C. C. Kerr, a prominent elevator owner at McClure, Ohio, and Harry Andrix, postmaster of West Hope, were placed under arrest recently by Toledo officers. The police judge refused to entertain the charge

and the case was then taken to the City Court, where City Judge Smith also promptly discharged them. Both defendants bear reputations above reproach and the affair caused no little stir and considerable of a sensation, as well as much indignation, among local grain dealers, who freely vouch for the high character of the accused men.

The Dowling Bros. grain elevator at Mandale was recently destroyed by fire, the property being practically a total loss. This elevator was formerly owned by J. W. McMillen & Co. of Van Wert, Ohio.

Charles Beetcher has sold his grist mill at Bloomfield, Ohio, to Barlowe & Whiteman of Greenspring. The new management has taken possession and will close the place down for some time while extensive improvements are being made.

ILLINOIS RAILROADS AND GRAIN STORAGE.

The Supreme Court of Illinois has affirmed the decision of Judge Honoré of Chicago, rendered early in 1907, dismissing the application of the Chicago Board of Trade for an order restraining railroads and lessees of railroad elevators from discontinuing the operation of those houses as public warehouses of the "A" class. The decision will not affect the status of public elevators in this city, which are now operated as such and will be continued to be so operated, under an agreement with the Board of Trade. The following extracts give the salient points of the decision:

Public warehouses of class "A" include all warehouses in which grain is stored in bulk and in which the grain of different owners is mixed together so that the identity of different lots cannot be accurately preserved. It will be observed that the information does not seek to compel the railroad to provide warehouse facilities for such grain as it transports to Chicago as a common carrier, but the prayer is in effect that the company shall continue to operate the two elevators in question as public warehouses of class "A." It is insisted by appellants that the maintenance of such warehouses is incidental to and necessary in connection with the railroad's duty as a common carrier of grain.

It is the duty of every railroad corporation which shall receive any grain in bulk for transportation to any place within this state to transport the same and deliver it to the consignee, provided such delivery can be made over any lines of road which the carrier is permitted to use, and all railroads are required to permit connections to be made and maintained with their tracks to and from any and all public warehouses where grain is or may be stored. (Hurd's Statutes, 1905, chap. 114, sec. 3.) It will thus be seen that there is nothing in the statute imposing the duty on a railroad company to furnish public warehouse facilities or to engage in the business of public warehousing and issue receipts to meet the wants or convenience of members of a trading exchange.

It may be conceded that, as incidental to their duty to transport grain in bulk, railroad companies under some circumstances have the power to furnish storage room for grain at important transfer points temporarily to enable the owner to collect enough for a cargo where the grain is to be reshipped by water, and it is well known that many railroads maintain elevators for such purposes; but such storage contemplates a rotation so that no one shipper can monopolize all the storage room and hold the same indefinitely or until the market seems to justify him in selling his grain. * * *

If appellants' contention is sustained, it would be possible for one buyer of grain to monopolize all the bins in these two elevators. As long as the owner is willing to pay storage charges to a public warehouse we know of no law limiting the time of storage. The ability of the railroad company to serve the public would be dependent upon the will and pleasure of the owner of the grain in the elevators. While this might be a great convenience to persons engaged in trading on the Board of Trade, we are unable to see how the public generally will be benefited or the railroad company will thereby be the better able to discharge its duties as a carrier.

Neither producer nor consumer will be benefited by having the grain lodged in a public ware-

house at some intermediate point for an indefinite time, in order to allow speculators to use the receipts representing such grain as a trading commodity. That a railroad company has no power, either expressed or implied, to own and operate a public warehouse as an incident to public purposes, as a public carrier, is in our opinion supported by sound reason and authority.

Other decisions are here quoted, the opinion continuing with reference to two as follows:

While these two cases (in the matter of Swigert, 119 Ill. 83 and Illinois Central R. R. Co. v. People, 119 Ill. 137) deal with the question of exemption from local taxation, the holding that the elevator was liable to taxation is based on the ground that the power to operate the elevator could not be sustained as implied or incidental to the power to own and operate a commercial railroad. We regard these cases as authorities against appellants' contention in the case at bar.

Appellants contend that the railroad company having devoted these elevators for a long term of years to use as public warehouses, they have

litigation that careful consideration which their importance seems to demand, our conclusion is that the information is entirely barren of facts upon which a decree granting the relief sought, or any other relief, could be predicated.

REED & WEIR.

The interesting grain elevator shown in the accompanying engraving, which is a distinct variation in form from that of the usual country elevator, was built in the fall of 1907. Having had, previous to that time, only a one-story brick building to do business in, the owners, Messrs. Reed & Weir, Superior, Neb., decided to remodel the entire premises and erect a small elevator. This was done, with the results shown in the picture, the rear of the premises being used for hay.

The machinery equipment now includes a feed



ELEVATOR OF REED & WEIR, SUPERIOR, NEB.

thereby become impressed with a public use, that is, with a right of the public to have that use continued. If this argument were limited to the duty of the railroad company to maintain their elevators for the use of shippers and buyers of grain who had for a long term of years enjoyed the right of temporary storage therein, and it was shown that such storage was in furtherance of the usual and ordinary business of transportation of grain, there would be more force in it. But the argument is not so limited. It goes to the full length of the right claimed by the prayer of the information. The fallacy in this contention consists in the failure to distinguish between the rights of the public and the rights of certain members of the Chicago Board of Trade. We have already pointed out that the public interest did not seem to demand the permanent storage of grain in regular public warehouses, and the issue of warehouse receipts in the manner and for the purposes provided by the rules of the Board of Trade.

If all public warehouses in Chicago of class "A" should cease to be regular, that is, cease to comply with the rules of the Board of Trade, by force of which their receipts would not be receivable on contracts for grain sold for future delivery—we are not prepared to say that any public injury would result. True, it would no doubt affect the business of persons engaged in dealing in grain for future delivery. In no event can it be admitted that the railroad companies in the state owe any duty to the Chicago Board of Trade on the theory that the members of that corporation are the public, in the sense that property once devoted to a use which serves the purposes and the convenience of the members of that exchange is thereby impressed with a public use and cannot for that reason be withdrawn from such use.

After giving the questions involved in this

grinder and 12-horsepower Witte Gasoline Engine. The storage capacity is 8,000 bushels.

The elevator was built mainly for Reed & Weir's retail trade in Superior, and there they handle all kinds of mill feeds, grain, flour, haled hay and alfalfa, salt, and kaffir corn, cane, millet and alfalfa seeds.

SWITCHING CHARGE ABOLISHED.

The Western lines entering St. Louis have filed tariffs abolishing the switching charge of \$2 per car of grain, if orders for disposition of the grain are received promptly. The new specification is as follows, applying to grain, flax seed and field seeds consigned to St. Louis, Carondelet and East St. Louis locally:

Free delivery to elevator, team track or private tracks on receiving carrier's line, or to connections for delivery to elevator, team track or private tracks within switching limits of St. Louis, Carondelet or East St. Louis, if orders for disposition are received within forty-eight hours from first 7 a. m. after notice of arrival. If orders for disposition are not received within above time, switching charge of \$2 per car will be made for delivery to connecting lines or to elevators, team tracks or private tracks on receiving carrier's line.

On grain reconsigned in original car to points beyond the stated switching limits, a reconsignment charge of \$2 per car will be assessed for delivery to connecting lines.

Peoria continues to absorb all the corn offered her, wet or dry.

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THE AGRICULTURAL DEPARTMENT AND GRAIN INSPECTION.

BY JOHN D. SHANAHAN, *

Technologist in Charge Grain Standardization.

The grain trade, as comprehended by the ruling spirits of many of the leading grain markets of this country, has been for some time in a mood of apprehension lest Congress should enact one of the several proposed Federal grain inspection laws now before it. This mood is not favorable to precision of thought and tends to mix matters to some extent. It is, therefore, not strange that, by reason of my many discussions of the existing conditions in relation to the inspection and grading of grain, I should have been looked upon by some members of that trade as the public spokesman for Federal inspection. I take this opportunity, however, to call the attention of my hearers to the fact that I have not championed the cause of Federal inspection of grain in any of my public utterances. Had it been my desire to do so, my remarks would undoubtedly have taken a form more pertinent to that question. My mission has been rather to clearly and truthfully describe the existing weaknesses of the present systems of grain inspection, in the hope of interesting the grower, handler and consumer of grain in our grain standardization project—a very different proposition. If, however, what I have said on the subject has shown the need of a Federal inspection law, the burden of proof to the contrary is naturally with those now responsible for the administration of the affairs of the grain business.

In his last annual report, the Secretary of Agriculture calls the attention of Congress to the seeming need of such a law in the interest of the American farmer. Aside from this, the Department has taken no part in the agitation, believing that the enactment of such a law concerns alone Congress and that section of the people who are vitally interested. I am not here, therefore, to talk Federal inspection of grain, but to endeavor to interest you in grain standardization, which, in concise terms, means the standardization of grain grades by the national government. In doing this it may be well to give a brief outline of the history of grain inspection in this country, and to point out in a general way its usefulness, weaknesses and needs.

Speaking generally, there are two distinct systems of inspection practiced in the United States, one on the Pacific coast, and another in the grain growing sections east of the Rocky Mountains. The former is the older type and is much the same as is practiced in Australia, Argentina and some European countries. But two important cereals are grown on the Pacific coast, namely, wheat and barley, and in the case of wheat there are but three fairly distinct types, which like barley, instead of being kept separate, are mixed together, and, as far as possible, marketed as one grade. Grain in that part of the country is handled and marketed almost entirely in sacks. Early in the crop season an average sample is made up which becomes the standard sample for the crop year and is known as the f. a. q. sample, meaning sample of "fair average quality." Portions of this sample are sent to all interested dealers and markets. It is the operation of mixing grain to equal this f. a. q. sample that is known as "grading" on the Pacific coast.

The system as practiced east of the Rocky Mountains, and with which, no doubt, you are all familiar, is peculiar to this part of the world, as it is the only one that attempts to fix the values of the different types and classes of grain according to numerically arranged grades.

*An address by the author before the Farmers' Grain Dealers' Association of Illinois, at Bloomington, on February 27, 1908.

There can be no doubt that the idea and scheme for inspecting, grading and certifying to grades of grain, such grades arranged numerically and according to certain requirements of quality, condition and color, and the practice of buying and selling grain on such certificates originated at Chicago some 45 or 50 years ago.

The practice, with slight variations as to local treatment, has extended to the whole grain producing area east of the Rocky Mountains, and has proved an important factor in facilitating trade between widely separated markets and traders. For several years after the inception of the idea of grading grain in this manner, there seems to have been no attempt made to regularly organize a corps of inspectors under competent authority, individual inspector's certificates being valued according to his reputation for square dealing, intelligence and integrity in his work.

The Chicago Board of Trade was the first to attempt to organize a grain inspection department. This was accomplished in 1858, and was followed, from time to time, by other commercial bodies of the country, despite a more or less strenuous opposition from many influential members of the grain trade, who looked upon the movement as an innovation that would do nothing if not accumulate claims for damages against the institutions fathering them. These fears were soon allayed, as it was found, after formulating rules and specifications for grades that were not too definitely worded, that a controversy over a grade of grain was quickly narrowed down to a question of a difference of individual opinion and judgment, and responsibility for claims for error and wrong inspection could easily be avoided.

In the beginning it seemed imperatively necessary that these specifications for grain grades be drawn so as to give the inspector a very wide latitude in the exercise of his judgment, inasmuch as nature creates no two things exactly alike, and in the cereal grains we find a certain range in each class of size, composition, development, moisture content, and general character, and a consequent difficulty in definitely fixing by rule the points separating one grade from another. These rules worked satisfactorily for the most part in the early days of the grain trade of this country, but unfortunately this situation has been abused, often to promote selfish interests, and to an extent that has caused more or less confusion and misunderstanding and placed the American system of grain inspection under suspicion in many quarters. It is in this phase of the question that we expect the investigations of grain standardization to be of most value in an effort to work out ways and means for grading grain according to definite standards of value and to eliminate as far as possible the element of individual judgment upon which the inspection of grain at present depends almost entirely. I am well aware that this element of judgment cannot be entirely eliminated, nor do I claim that its entire elimination is necessary or desirable. Perhaps it is, has, and always will be, the backbone of grain inspection, but my observations confirm my belief that this backbone is afflicted with a very bad case of curvature and one that will require skillful treatment to cure.

That this element of judgment is badly in need of some definite, mechanical methods of checking it from month to month and from day to day, can be amply illustrated in the work of any inspection department at this particular season of the year, especially in the inspection of corn. Given an opportunity to examine the inspection samples of any one market during a period of alternate frost and thaw, you will invariably find that samples of corn will be given a much higher grade on a frosty day than they will be on a day when the temperature is above the freezing point. Thus the grades, no matter how honestly or conscientiously made, constantly over-

lap one another and cause much dissatisfaction. This is the main reason why you oftentimes ship corn to market from the same lot, or taken from the same bin, and, however thoroughly it may be mixed, get several different grades upon it on different days, and shows the importance of having something of a mechanical nature to check the judgment and keep it in line one day with another.

It also argues strongly, in my opinion, for the inspection and grading of grain under cover and where it is possible to maintain uniform conditions of light and temperature in order that the grading may be uniform and just. Office inspection has been objected to on several grounds, the principal one being the extra amount of time and labor necessary in the collection of samples. A practice of this kind has passed the experimental stage in the Minnesota State Inspection Department, one of the largest in the country, and has resulted in an infinitely more uniform, even and just grading than could possibly have been accomplished under the old system in which the inspector graded the grain at the car under all sorts of conditions of weather and light, and I venture to say that under no circumstances could that department be prevailed upon to return to the old system of inspection.

The methods in use in the practice of grading grain up to a few years ago answered very well under conditions then existing. Farms were smaller and better care was taken of their products. When these products were put upon the market, they were in better merchantable condition. "Old crop grain" was marketed long after a new crop had been harvested and was being made ready for market, and grain of a very poor quality or in very bad condition seldom found its way to market.

In early days the grades of grain were practically uniform in all markets. The practices and methods of grain inspection have not kept pace with the advances, improvements and changes in the methods of storing, transporting and marketing grain and the manufacturing of grain products. In fact, the pace maintained by commerce in grain has served to add greatly to the inspector's confusion, notwithstanding the fact that he has become an important factor in the American grain business. Some of the causes for this confusion may be given as follows:

The wide and rapid extension of the grain raising territory, and particularly the growing of wheat in the Northwest upon extensive ranches or estates where loose methods of farming are found to be more or less profitable, and where in many cases nothing but wheat has been raised year after year for many years, with a consequent deterioration of the soil and product and an increase in the production of weed seeds and other objectionable matter; the raising of vast crops in the Southwest, for which adequate provision was not made for proper housing and caring for same, and the consequent deterioration from the inclemencies of the weather; the practice of storing corn during the winter months in open rail cribs or pens without proper covering, whereby it is allowed to absorb and retain moisture instead of curing and drying out, and the consequent enormous losses sustained by its deterioration in storage and in transit during the following spring and summer; the introduction of new kinds and classes and the cross breeding of different varieties of grain, of which it is difficult for the inspector to keep informed; the enormous growth in volume of the grain business and the consequent necessity for quick dispatch in handling; the enormous increase in the size of ships, railroad cars, and other facilities for, as well as changes in the routes and zones of, transportation. An example of this last feature has been the enormous amount of grain from the Mississippi Valley that has for the past few years been transported to ports on the Gulf of Mexico for export, instead of the Atlantic

ports as formerly. These and many similar causes contribute to the confusion of the grain inspector, which, considered along with the indefinite rules and specifications which are made up for his guidance, and the fact that the inspection itself is used as a means of competition between different markets, will comprehensively explain why there is dissatisfaction with our American system.

Grain inspection under state administration was also first accomplished at Chicago by the state of Illinois in 1871. This move was followed in turn by Minnesota, Missouri and Kansas, whose laws upon the subject are similar. The states of Washington and Oklahoma also have laws relating to the subject, but their provisions are only nominal. There are, therefore, only four states in which definite grain inspection laws exist. In all other states, excepting Washington and Oklahoma, grain inspection departments are organized and administered by commercial bodies of the different markets in which they are located.

Investigations into the status of the American grain inspection question and its effects upon and relations to the grain business, including the producer, have been carried on for a number of years by the Department of Agriculture by authority of Congress. The investigation was brought about by increasing and persistent complaints of alleged wrongs through the inspection of grain both from shippers and receivers, at home and abroad. The scope of the investigation has been wide and has taken in the whole of the United States and the markets in Europe where our grain is sold. In a general way it was found that much confusion of ideas existed, especially on the part of the foreign buyer in relation to grain inspection, grades and certificates; that a gradual deterioration of the standards of our grain grades had been taking place, mainly because the inspection was used as a feature of competition between different markets, especially at export points; that the inspection certificates of some of these markets were looked upon with suspicion, especially by foreign buyers of our grain, and there appeared to exist a tendency to avoid responsibility for these certificates on the part of the inspector and the authorities issuing them; that after inspection no adequate protection was given to the grain in order to preserve the identity and integrity of the grade against manipulation in transit; that while the advertised rules and specifications for grades in all markets, both interior and seaboard, are practically the same, there seemed to be an altogether different basis for grading grain for export; all interior and some export markets when receiving grain divide the several classes into four or five grades, which, when inspected out for export, are merged largely into two and for most part one grade of each class; that more or less indiscriminate mixing of poor grain with good was being allowed, and to such extent as to lead at least some foreign buyers to believe that no really good grain is grown in this country.

Exporters of grain on being asked why they do not make a more rational division of the grades for export invariably answer that the foreigner will not buy good grain and pay what it is worth. When asked why, he has no satisfactory explanation. Through our agent in Europe an explanation has been sought from several large and influential foreign buyers. Their answers in effect are that they certainly would pay higher prices for the better grades if they could rely upon the certificates covering those grades. At present, if they pay a premium for a choice lot of corn, they can get only a certificate of "2 Mixed Corn," "Sail Grade," while other dealers can get ordinary corn, also certified as "2" or "Sail Grade," with which he can undersell the man with the choice corn and furnishing the same kind of a certificate. If this is true, and my observation leads me to believe that it is, and I know it is often true in our home trade, a

great injustice is done the producer in not marketing these higher grades separately. Almost every market that maintains an inspection department has in its rules and specifications a grade of No. 1 corn, and, in my judgment, there are at least two or three months during each crop year during which a large percentage of the crop is entitled to be so graded; yet I have never heard of a car of corn grading No. 1.

Seldom is any endeavor made in the general trade to obtain a premium for such corn. There is, in my judgment, no good reason why the producer of good grain, who, through advanced knowledge and years of careful and patient work, has produced an excellent quality of grain, should be compelled to assist in marketing the grain of the careless farmer, as my observations lead me to believe he is doing under existing circumstances. That there is some good excuse and reason for a rational mixing of grain, I am willing to admit, but I also believe that this mixing has been abused to an extent that has materially reduced the prices that could be obtained for the better qualities of our grains.

Further, the conditions under which the inspector is obliged to work are not conducive to just and uniform results. The moisture content, color and composition of grain, as are usually indicated by its texture, are important factors of value; yet he is obliged to pass judgment on and to grade grain often in the open with the temperature many degrees below the freezing point and the grain frozen solid. He is obliged, also, to do this work at times in cars and other vehicles placed under bridges and in the shadow of buildings where sufficient light is impossible even on clear days, and often the demands of commerce for dispatch obliges him to inspect and grade grain at night by artificial light, under which conditions intelligent, just and honest work is impossible.

Perhaps the greatest difficulty encountered by the grain trade and the grain inspector is the heating and spoiling of grain in transit and storage. The primary cause is excess of moisture, influenced largely by the temperature. The cause of this heating is due almost solely to the relation of moisture and temperature, together with the fineness of the particles, and is not an inherent quality in the grain to germinate at any particular season of the year. Thus, a sample of cornmeal containing 14 per cent of moisture might keep perfectly well at 60 degrees while the same meal would heat if the temperature should be raised to 90 degrees. At the higher temperature the meal would not be capable of holding 14 per cent of water, and in the attempt of the superheated moisture to liberate itself heat is generated, some parts becoming more moist than others, and when the action once starts it increases rapidly. If in a small bulk, so that the moisture can escape freely when liberated, no heating will result. These conditions are liable to exist in a marked degree in the case of corn containing excessive moisture during the early spring and summer, if the corn is shelled and stored during the winter months when the temperature is low. Moisture is liberated in the grain in the portion of the bulk first affected, only to be condensed on the other grain which is still at a lower temperature, and in the re-establishment of the equilibrium within the kernels the increase in the temperature is gradually accelerated.

Grain of any kind, if once thoroughly dried, can be kept indefinitely in storage without heating, provided the moisture content remains the same and the temperature of the surrounding atmosphere is not raised beyond the point at which the drying was done. In fact, the whole question is one of moisture vs. temperature.

The primary objects of the grain standardization investigations upon which we are at work are to determine definitely the causes of deterioration of grain in storage and transit, to de-

vise means for preventing such deterioration; to study the various factors which are taken into consideration in fixing the present grades of commercial grain; to develop methods for determining these various factors quickly and accurately, and to demonstrate the practicability of grading grain commercially according to a uniform system and on a definite basis.

In doing this work six grain testing laboratories have been established, one each at New York, Baltimore, Minneapolis, Duluth, New Orleans and St. Louis. These points were selected with a view to giving as wide a range in distinctive phases of the grain business and of climatic conditions as possible. The work of these laboratories consists primarily in the examination of samples of commercial grain submitted to them, the determination of all factors taken into consideration by the grain inspector and dealer in fixing grades of grain and reporting upon same to the submitter of samples, studying methods of artificially drying, handling and storing of grain, and other features of the grain business in so far as they have a bearing on the value and stability of commercial grades.

Moisture in corn is now being determined according to the method and with the apparatus developed by the Department of Agriculture. This apparatus has proved commercially practical and is being used by the principal inspection departments and grain dealers throughout the country. Much valuable information in relation to the general subject of merchandizing our cereal crops has been obtained through these investigations, and the work has begun to yield an important influence toward a better understanding of the values and a more intelligent inspection of grain grades. Appreciation of this work and the public service being performed is evidenced in the continued interest shown and the large number of samples that have been submitted to these laboratories for examination since they were established. The reports of examination of samples issued from these laboratories are coming to be freely used as guides and factors of arbitration in cases of appeal from the inspector's grading and in situations wherein the quality or condition of grain is the issue.

A laboratory has been established in Europe for the purpose of studying questions bearing upon the quality and condition of American grain arriving at foreign ports. A laboratory for purely research work has also been established at Washington. Its investigations include research work of a technical and scientific nature bearing upon the grading of grain, with the object of improving the methods of ascertaining the effects of the deterioration of grain and to develop additional methods and apparatus with which to ascertain quickly the amount and factors of value in commercial grain. Aside from the development of the moisture testing apparatus, which has become an assured success, this laboratory has already developed a new automatic balance whereby the different determinations obtained from analysis of samples can be weighed very quickly and with an appreciable saving of time. A method for the quick determination of the degree of "beat damage" in wheat has also given considerable promise of results.

Plans for the future in this work are along much the same lines as above outlined, and we hope to be able to establish several more grain testing laboratories in the principal grain markets, and to install at Washington a well equipped experimental flour mill in connection with the research laboratory for the purpose of studying the milling values of wheats.

In conclusion, I wish to mention just one more point which my observation tells me has had an important bearing upon the commercial value of corn, especially during the past several years, and one that is either given slight attention or is being entirely overlooked. That is, the growing of corn that will not mature early enough in

order that it may be properly cured for storage and shipment before it is put upon the market. There can be no doubt that the enormous losses sustained by the producer, dealer and consumer alike, from corn that would not stand storage and shipment, have had a detrimental effect upon



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the prices that the producer has been able to procure for it, and while the breeding and growing of such corn has not been the only cause for this loss, I am well satisfied that it has been an important factor and one that it would be well for the corn breeder and grower to consider. I believe that the advantage gained by the grower in producing corn that has yielded large ears and kernels has been more than overbalanced by the loss sustained in storage and transit after having been put upon the market, and that this situation has been growing worse for at least the past five years.

AS IT IS IN EL DORADO.

El Dorados, as Omar said of heaven, are "within ourselves;" that is to say, they are as rich in "pay dirt" as we make them. It is about eleven years since L. H. Powell went to El Dorado, Kan., and established there a business handling grain, feed, coal and building materials. He worked the "lead" vigorously and "on the square" and naturally got his reward in "yellow metal." In consequence, he eventually outgrew his premises; then he erected the elevator, offices and warehouse shown in the accompanying engraving. About four years ago, he removed to Wichita, where he organized the firm of L. H. Powell & Co., wholesale dealers in lumber and building materials, with branch office at Shreveport, La., sending his brother, C. E. Powell, to El Dorado to manage the business there, as he does to-day.

The elevator, which has just been rebuilt, has a capacity of more than 25,000 bushels and is equipped with modern machinery, including double dump, automatic scale, corn shellers, cleaners, large capacity elevators and grinder for feed. All wagons are automatically loaded and unloaded, five minutes being all the time required to receive, weigh and unload any load of grain.

In addition to the elevator, there is a large warehouse for the storage of baled hays and sacked feeds and for handling field seeds, such as cane seeds, Kaffir corn, millet, etc., in which line L. H. Powell & Co., as the firm is styled, are doing a large and annually increasing business.

The debate on the Congressional seed distribution at the University of Illinois by the Agricultural Club, was decided for the contention that the distribution is undesirable.

THE McCUMBER BILL HEARING.

The House committee on interstate and foreign commerce on March 3 began hearing objections to the three bills before it providing for the inspection and grading of grain by the Government. The three bills in question were those introduced by Reps. Gronna of North Dakota, Watson of Indiana and Pearre of Maryland, which aim at the same object but differ as to details.

At the opening session of the committee there were represented among the objectors the Boston Chamber of Commerce, the Commercial Exchange of Philadelphia, the Corn Exchange and the Chamber of Commerce of Buffalo, John B. Daish for the Grain Dealers' National Association, as well as individual grain exporters and others.

Representative Gronna of North Dakota opened the proceedings by a speech in favor of the bills. He said the grain growers of the West have suffered heavy loss from lack of a uniform system of classification; and read letters and resolutions from the London Corn Trade Association and continental grain trade organizations to the effect that American grain is being widely discriminated against by European buyers on account of lack of a uniform and dependable system of grading. Mr. Gronna complained particularly of the Minnesota state inspection.

Opponents of the bill argued that grain inspection in interstate commerce is not a function within the constitutional powers of Congress. They asserted that certain provisions of the proposed bills, if enacted into law, would impose as many as five distinct inspections of one shipment of grain before it could leave the United States in export, and that under the operation of the proposed law exporters would have no monetary redress for loss through misgrading by federal inspectors, and therefore this loss ultimately would be charged against the grower.

Mr. Hamlin, who represented the Boston Chamber of Commerce, contended that the proposed law

ture to show that the number of inspectors required would not exceed 650. The estimated cost of the inspection he placed at 35 cents per car.

In answer to a question from a member of the committee as to whether he did not think that



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this system of inspection would result in duplicating the state systems of inspection now in operation, Mr. McCumber said it would not. He believes that as soon as a uniform system of federal grain inspection was established the other systems would promptly be done away with. They would be rendered unnecessary.

Mr. McCumber was then asked whether the new system would not employ many of the same men who are employed by the different systems of inspection now in vogue, and said he thought it would. This led to inquiry whether the men



L. H. POWELL & CO.'S ELEVATOR AT EL DORADO, KAN.

would be unconstitutional. "The question whether the Government has the right of inspection was clearly defined," he said, "in the case of Gibbon vs. Ogden, decided by Chief Justice Marshall early in the last century. In that decision it was held that the states reserved to themselves the right of inspection and consequently the provision of the Constitution giving the federal Government control over interstate commerce did not give it the right of inspection of products of the various states. The right of the state in that respect has never been relinquished. Further, the sale and inspection of grain is entirely an intrastate transaction and subject only to the laws of the states, under the decision in Gibbon vs. Ogden.

On March 4 Senator McCumber replied to the criticism that the execution of the proposed law would require several thousand men, by presenting figures prepared by the Secretary of Agricul-

would be any more efficient working under federal authority than they were when working under state authority, and Mr. McCumber said that he thought they would be, because they would not be influenced in any way except by the desire to get at the facts in regard to grain. Further discussion enlarged more extensively upon this point.

The hearings closed on March 5, when the bills were criticized by Chas. F. Staples, of the Minnesota Railroad and Warehouse Commission, who riddled the arguments of Senator McCumber, whose every allegation with reference to Minnesota state grain inspection was met with facts and figures. Senator McCumber has based his bill and many of his charges against the Minnesota system of grain inspection on the statement that 26,000,000 bushels more of wheat were inspected out of store at Minneapolis, Duluth and Superior than were inspected in, and so were not ac-

counted for, during the past few years. In other words, he claimed that this large amount of wheat which had been weighed in as having been received at terminals and inspected was not shipped out as of the same grade which it was given when received. To substantiate this claim the North Dakota senator produced a statement compiled by Mr. Cruxton of Superior, Wis., showing the above conditions and intimated that grades were changed in the terminal elevators. But when Mr. Staples produced a sworn statement from Mr. Cruxton showing that he was in error and giving the details, the committee sat up and took notice. It seems that in Mr. Cruxton's first statement no account had been made of the wheat sent to Minnesota mills for local consumption into flour, or of the amount in elevators prior to the time that he commenced his compilations.

A St. Paul paper at the close of the hearings was informed by its correspondent at Washington that Rep. Stevens of St. Paul, a member of the committee, in summarizing the impressions he has obtained from the testimony before the committee, made the following observations, which, it may be said, are shared by several members of the committee who are giving careful attention to this matter. Mr. Stevens said:

"The investigation has developed that undoubtedly some abuses and evils exist affecting both the producers and consumers of grain; but the testimony seemed to show that the interests of the producers in the Western states can best be cared for by local inspection and local officers. The department at Washington is so distant and the system of machinery and 'red tape' is so intricate and slow that little relief could be expected by producers, who, when they want help, want it quickly. This can never be afforded by a federal tribunal.

"As to consumers within the United States, it is probable that abuses can be remedied either by the grain exchanges or by the state laws. But as to the foreign consumers, it is evident that there have been abuses which injured to quite an extent the trade in American grains. The chambers of commerce in the exporting cities have done much to remedy these evils, and the reputable grain houses also have done their share, but there does seem to be needed some legislation which shall not only insure that the evils of false billing, overgrading and the like shall be corrected by competent authority, but that the foreign consumers shall have the assurance of the national government that the right thing is being done. This perhaps will help the American grain trade as much as anything. No such bill has yet been presented to either branch of Congress, and it is doubtful if it can be framed this session. But such legislation will be needed in the near future, and may be the outgrowth of the investigations now being pursued in the Senate and House committees."

At the close of the hearings it was the general belief that the bills would be tabled and that would end it all; but on March 9 it was telegraphed from Washington that, "Fresh impetus has been given the project of Senator McCumber for federal inspection and certification of grain through the fact that the chairmanship of the Senate committee on agriculture will fall to Senator Hansbrough of North Dakota. Senator Hansbrough, who now is in North Dakota recovering from an illness, wired to-day that he desired to be head of that committee. It was through the medium of the agricultural appropriation that Senator Hansbrough, a member of the committee on agriculture, was able to give the project of federal grain inspection a start."

In the meantime the protests that have been registered against the bill all during the session, it now develops, have been only a small part of the flood of objection that is to be hurled. On Saturday, March 14, the following organizations had their representatives in Wash-

ington to attend a conference of the Grain Dealers' National Association on the McCumber bill and the sentiment of these representatives was largely in opposition to the passage of the measure: The Chicago Board of Trade; Baltimore Chamber of Commerce; Cincinnati Chamber of Commerce; Board of Railroad and Warehouse Commissioners of Illinois; Illinois Grain Dealers' Association; Iowa Grain Dealers' Association; Indiana Grain Dealers' Association; Louisville, Ky., Board of Trade; Memphis, Tenn., Merchants' Exchange; Grain Dealers' Exchange, Nashville, Tenn.; Peoria, Ill., Board of Trade; Philadelphia Commercial Exchange; Pittsburgh Corn and Flour Exchange; Northwestern Illinois Grain Dealers' Association.

It will thus be seen that, with a determined chairman of the Senate agricultural committee on one side, and the exchanges and trade associations on the other, the project of giving Government supervision over characterization of the interstate commerce grain shipments is at least going to be taken seriously.

TOO WEAK TO STAND.

Of course, in view of the very high price of good lumber, there is a disposition to use cull stuff in making grain doors; but the economy of



A SAD CRIPPLE.

the practice may well be questioned. The picture, for example, which is one from the very large collection made by Chicago's Board of Trade Weighmaster H. A. Foss, shows a door made of cull lumber which, being improperly and insufficiently braced, was too weak to prevent leakage under the pressure of the grain behind it.

Often one board in a door of this kind is much weaker than the others, a fact that there is perhaps no way of discovering until the car has been in transit or has been switched around the yards; then it springs enough to allow the grain to leak between the boards.

When, therefore, doors of this kind of lumber are used for corn, wheat and the like, they should be doubled. When the car is a small one and is being prepared for oats, a single door, well braced by crossboards fastened individually to each board of the door, will be sufficiently strong.

The British steamship *Silksworth Hall* on March 1 sailed from Baltimore with 293,571 bushels of grain on board for Hamburg, being the record cargo for size from Baltimore.

The inspection of the grain which passes over the Fitchburg Division of the Boston & Maine, which has been done for several years in the local yard, will be transferred to Mechanicville, N. Y.

THE GRAIN TRADE AND SPECULATION.

BY FRANK I. KING.*

A large majority of people do not understand the grain trade. Very few appreciate the great value boards of trade are to the producers, millers, exporters, bankers and the general business interests of our country. Permit me to state some plain facts.

Wheat, corn and oat crops of the world are each over three billion bushels. They vary a few hundred millions every year and this is the principal cause of the variation in price. The price for our exportable surplus generally makes the price for the crop. Restrict speculation and foreigners will dictate as they do at present upon Argentine wheat. Wheat is raised almost everywhere. Some country is harvesting nearly every month. Years ago India was feared as a rival, now it is the Argentine, with its virgin soil, but they still have primitive methods and no markets on futures to protect them. United States is the largest wheat producer and exporter. We raise only a fifth while Europe produces over half of the crop of the world and imports around 450,000,000 bushels. Our bread and seed requirements are 550,000,000 bushels. Corn and oats are nearly all consumed in countries where raised. Climatic conditions make our country king on corn, producing 80 per cent of the total crop and nearly a third of the oats. Russia is Czar on rye and hell.

Boards of trade are the grain markets of the world. Buyers and sellers, the farmers, dealers, millers and exporters from everywhere, meet there daily in person or through brokers. Millions of dollars are expended annually in gathering information regarding crops, supplies and demand, present and prospective, and spreading it broadcast. Press associations keep the general public informed and the farmer gets it by 'phone and in his daily papers. Leading markets have continuous quotations posted wherever they are wanted for legitimate purposes. The information enables everybody to trade intelligently. It enables the trade to work upon a smaller margin than in any other business, directly benefiting both producer and consumer. Only an eighth of a cent per bushel is the commission charged on futures and half cent on cash grain, while in Argentina dealers make about six cents. Federal Judge Grosscup in a recent decision said: "Legitimate grain exchanges balance like the governor of an engine the otherwise erratic course of prices. They focus intelligence from all lands and the prospect for the whole year by bringing together minds trained to weigh intelligence and to forecast the prospects."

Boards of trade are not secret societies. Everybody can trade there. Anybody can join if he has a good reputation and some money. A large majority of the members have limited financial means. Chicago is the leading market of the world. Their memberships, including real estate rights, are only \$2,200. There are about twenty other boards, some almost as important as Chicago, which last year received 307,000,000 bushels of grain and flour. Years ago nearly all grain went to the regular markets, now a larger part goes direct from the interior to the consumer without appearing in the primary receipts, but is marketed largely through hedges made upon the different exchanges. There is warehouse storage capacity of 300,000,000 bushels at the leading markets, Chicago alone having sixty millions. Toledo has eight millions and receives from twenty to thirty millions, but handles many millions additional. It is the largest grain market and milling center in Ohio.

Everybody with ambitious money speculates.

*Report of remarks made before the Ohio Legislature by Frank I. King of Toledo in opposition to the Shuler bill prohibiting trading in grain futures in that state.

We cannot all select rich parents. If we could, lazy money would not develop our country. Speculation enters into every kind of business activity. It is so from the cradle to the grave. Marriage is a speculation. Farmers take chances when they plant their crops. They speculate upon which will best escape the crop killer. Some contract their crops before thrashing. Manufacturers, jobbers and retailers all seek orders months ahead and speculate upon the future demand. They watch the crop outlook and depend upon boards of trade for most of their information. Many speculate in real estate. The South favors cotton, and several of the states are realizing their mistake in trying to restrict speculation there.

Speculation is the lever that sustains and advances prices. It carries the large visible and invisible stocks until they are wanted by millers and exporters. It takes them when farmers are the most anxious to sell, generally soon after harvest. It sustained prices during the recent financial distress. It advanced the price of wheat over twenty cents last May in anticipation of a shortage in supplies, that has not yet developed, but of which there is beginning to be some evidence. Some think it has this season added ten cents a bushel to the value of wheat, corn and oat crops, thus helping the farmers three hundred and sixty million dollars. Restrict speculation and you restrict the demand and hurt the price. Germany, which is an importer, tried it but has since repented because its farmers objected. President Roosevelt in his recent message said: "The great bulk of the business transacted on the exchanges is not only legitimate, but is necessary to the working of our modern industrial system, and extreme care would have to be taken not to interfere with this business in doing away with the bucket-shop type of operations."

Government appointed a commission in 1898 to investigate the effects of speculation on the value of farm products. Senator Kyle of South Dakota was the chairman. His state depended entirely upon the prosperity of the farmers and those seeking divorce. The commission decided that speculation was beneficial. It said it had been found best for both producers and consumers, that the risks of distribution should be localized in a separate commercial class whose members are in position to inform themselves as to all factors, past, present and prospective, affecting the future course of prices. Without speculation modern markets would be deprived of a great share of their efficiency in serving producers and consumers. Speculative agencies in distributing farm products localize industrial risks among a commercial class whose function is to distribute surplus supplies, relieve both producers and consumers of carrying a year's stock, and competition of speculative traders tends to reduce profits of the brokers to a minimum.

There are two kinds of speculation, legitimate and illegitimate. One moves the crops, the other is merely gambling. There is as much difference between regular boards of trade and bucket-shops as there is between national and faro banks. One helps prices, the other hurts. Bucket-shops merely bet upon the quotations established upon the legitimate exchanges and somebody steals the Chicago quotations for them. They win when their patrons lose. Many of the shops faint away when their patrons win much. They take ten-dollar bets from those who cannot afford to lose. Many innocent people patronize them, thinking they are agents of regular boards of trade. If everybody who bets there would have his orders executed upon the regular boards it would greatly increase the speculative demand and help prices. Bucket-shops are to blame for some of the present agitation and should be suppressed. Chicago Board has tried for twenty years, but the New York Stock Exchange has been indifferent. A national law is necessary.

Grain contracts made upon regular boards are like any other to be fulfilled in the future. There is no optional part except the day of delivery during the month specified. Delivery of the actual grain does not occur in every case, but is intended when the contract is made. Sellers might be disappointed in their crops or find a better market elsewhere and hence wish to cover the sale in the open market. Ninety per cent of the money transactions are settled through clearing houses with checks. The actual money seldom changes hands. Such grain settlements are legal and proper. The Supreme Court of the United States has so declared. Associate Justice Holmes in a very clear and learned decision on May 8, 1905, said: "The sales in the pits are binding. A set-off is in effect a legal delivery. The fact is no more wonderful than the enormous disproportion between the currency of the country and contracts for payment of money."

Importers of flour and grain in foreign countries purchase large quantities for future delivery from dealers in exporting countries. Sometimes they sell a portion of these purchases, if they can replace them to advantage elsewhere. For instance, a merchant in Antwerp may send us an order to purchase 50,000 bushels of wheat for May delivery and the order is filled. Probably in February, when the Argentine shipments are very large, the Antwerp merchant can purchase wheat in that country to better advantage. Consequently he orders us to dispose of his 50,000 bushels of wheat for May delivery, which we readily do under existing trade regulations. Under the proposed anti-future laws, we could not comply with his order to sell the wheat, as we would not have it in our possession. We would have to wait until its delivery in May before we could dispose of it. All such trading would leave this country, and with it would go a good proportion of our export trade, as the latter would be sought for and solicited by commercial organizations in other exporting countries where no such restrictions prevail—a detriment to the farming interests of the United States.

The proposed bill, if constitutional, would prevent trading in futures and in cash grain on margins, stop the posting of markets, kill speculation and hurt the farmers, who are the backbone of our state. They produce over two hundred millions of grain annually. It would destroy the present system of trading, and put every Ohio board of trade and broker out of business. It would deprive the farmers, dealers and millers of the [benefits of] fluctuations during the day and compel buyers and sellers to take a larger margin. It would prevent millers and dealers from making hedges against their purchases [and sales of flour]. They are compelled to accumulate large stocks soon after harvest, and banks would refuse to loan them fully upon their receipts unless they could protect themselves by hedging. They would be unable to compete with others in our sister states where they have no such laws. Several Toledo millers have accumulated stocks of million and half bushels of wheat in two months after harvest. A decline of twenty cents would ruin them, if they could not sell futures as a hedge. The premium which speculators generally pay for futures pays the millers and dealers for carrying the actual grain until it is wanted for consumption or export.

The present system of trading has been in vogue for many years. Senator Washburn tried to change it in 1892. He controlled the Minneapolis mills, the largest in the world, and was anxious to secure cheaper wheat. Is that what our farmers want? Look at tobacco. Did you read the threat issued this week to the tobacco growers of Kentucky if they dared to plant more this year? There is no trade in futures in that. The trust makes the price and it is only half what it was a few years ago. The good intentions of the author are shown in the title of

Shuler bill, No. 1068, but the results would be disastrous to the agricultural and commercial interests of Ohio.

INSECTS MISTAKEN FOR CHINCH BUGS.

While the chinch bug is in evidence each season in some portion of the country, it is probably true that many of the chinch bug scares are without foundation, since there are a number of insects

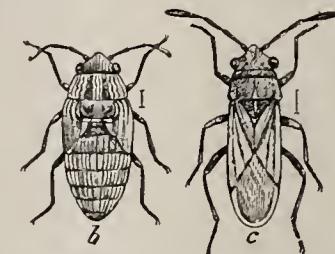


FIG. 1. THE FALSE CHINCH BUG.—*Nysius angustatus*. b, Pupa; c, Mature Bug. (From Riley).

that are taken for this destructive pest by the uninformed.

In a recent exhaustive bulletin on the chinch bug, F. M. Webster, in charge of cereal and forage plant insect investigations by the Department of Agriculture, states that Osborn and Mally have given a list of twelve species of Hemiptera which have been mistaken with more or less frequency for the chinch bug, the list being as follows:

Nysius angustatus Uhl., the false chinch bug



FIG. 2. THE ASH-GRAY LEAF BUG.—*Piesma cinerea*. (From Riley.)

(Fig. 1). is probably the most frequently mistaken for the true chinch bug, as it often breeds in considerable number under purslane, amaranth, etc., and more than any insect resembles the chinch bug. It is, however, of a light-gray color, which will always distinguish it from its more destructive fellow.

Ischnodemus falcatus Say, or the long chinch bug, as it is sometimes called, is much larger and longer than the true chinch bug.

Ischnorhynchus didymus Zett. is more robust,

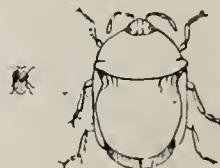


FIG. 3. THE NEGRO BUG.—*Corimelena pulicaria*. (From Riley.)

of a light tawny color, with prominent glassy wings.

Peliopelta abbreviata Uhl. is, next to the false chinch bug, probably the most often mistaken for the true insect. Its broader head and body, however, quickly enable one to distinguish.

Geocoris fuliginosus Say, *G. borealis* Dallas, *G. bullatus* Say, and *G. limbatus* Stal, according to Osborn and Mally, have all been confused with the chinch bug in Iowa. These are all broader and flatter than the true chinch bug, the head being nearly as wide as the thorax.

Ligyrocoris sylvestris L. is larger than the true chinch bug and its wings are quite dark instead of white.

Trapezonotus nebulosus Fall. is a trifle larger and its body is not so black as in the chinch bug.

Cymodema tibida Spin. is longer than the true chinch bug, of a light brown color, and the ends of the wings are glassy.

Triphleps insidiosus Say, or the insidious flower

bug, as it is more commonly called, is another bogus chinch bug, though an enemy of the true pest.

Piesma einerea Say, the ash-gray leaf bug (Fig. 2), is often mistaken for the true chinch bug, though its form differs greatly from that of the latter. It is often quite abundant, but not in grain fields or meadows.

Corimelæna pulicaria Gerst., the flea-like negro bug (Fig. 3), has been confused with the chinch bug, though it does not in the least resemble the latter either in form or color, and its confusion is probably to be accounted for by the fact of its being occasionally found in wheat fields in considerable numbers.

Brachyrhynchus granulatus Say has been mistaken for the chinch bug in Ohio. It is broader and much flatter than the true chinch bug, but the wings are white and the body black.

The object in calling attention to these bogus chinch bugs is to prevent their confusion with the true *Blissus leucopterus*, as in some cases people finding them and supposing them to be the true pest are likely to become panic stricken and often destroy property unnecessarily, so notorious has the name "chinch bug" become in the United States.

PACIFIC COAST WHEAT IN BULK.

The Washington Railroad Commission on December 14 heard arguments of grain growers and handlers for and against the proposition to handle and export all Washington wheat in bulk instead of bags. The Conference was called by the Commission, who desired to get an expression of opinion from the railroads and the grain dealers on a question that has been under consideration for a long time. The discussion was informal, and it was conceded by everybody present that to handle Washington wheat in bulk instead of sacks meant a saving to the farmers of the state of several million dollars every year. Not only would there be a saving in money paid out for sacks, but the wheat could be handled more expeditiously.

The railroad men present said that the railroads favored handling wheat in bulk, in the East. The exporters and millers, however, object to the change from the sack system; and the meeting adopted a motion to the effect that the "Millers and exporters of wheat in Tacoma and Seattle do not consider this a proper time to agitate the handling of wheat in bulk."

Members of the Railroad Commission, at the close of the "hearing," announced that for the present the question will be dropped by the Commission, but that it will be taken up at any time the farmers of the state appear to be generally in favor of bulk shipments.

Subsequently the Commission tentatively approved the proposition to send grain to tidewater in bulk, as did also the State Wheat Growers' Convention at Pullman. Indeed some bulk shipments have already been made, and there is so much of a demand for cars for this traffic that the railways have begun supplying them. At Quincy, Wash., on January 14, a meeting of farmers was held which voted to proceed to form an organization to be called the Quincy Farmers' Elevator Co., and to appoint a temporary board of five directors to fix the stock value of the company and solicit members, which was carried. Those appointed on the board of directors were: Elmer Huffman, N. D. Johnson, D. J. Peters, L. Delivuk and M. F. Cochran. The capital stock of the company was voted to be placed at \$10,000.

At the conclusion of the State Wheat Growers' Association at Pullman, it was voted to urge the C. M. & St. Paul Ry. Co., now building to the Pacific Coast, to inaugurate a system of grain elevators on that line instead of using warehouses.

Since then the subject has been very widely discussed all through the wheat area of the states of Washington, Oregon and Idaho. The farmers, of course, favor the bulk system of handling wheat

for obvious reasons; but there are many obstacles in the way of an immediate abandonment in that country of the bag system of movement. In the first place, there is the thrasher, which is rigged to deliver the grain into bags only; and then there is the question of bins on the farm to hold the grain should the grain thrasher deliver it loose, and light wagons to haul it, and elevators to receive it at the railways and at the terminals, all of which are lacking.

But bags cost about eight cents each now, and at that rate the expense of sacking to the farmer is enormous and it is a dead loss, since the sack never comes back to him. Indeed, the cost of sacks would, in a year or two, build all the farm granaries needed and go far toward building the assembling elevators also.

DEATH OF PIONEER ILLINOIS GRAIN DEALER.

One of the early settlers and grain dealers of Illinois, Henry Linebarger, died at Phoenix, Ariz., on February 3.

Mr. Linebarger was born in Will County, Illi-



THE LATE HENRY LINEBARGER.

nois, in 1840. His father was one of the pioneers of the state, locating about eight miles south of Joliet, and Mr. Linebarger grew up in these early surroundings.

In the year 1869 he left the farm with his two brothers and moved to Stanford, Ill., two miles west of Bloomington, where the three engaged in the grain business. They built elevators at towns on the Dwight division of the Alton road, the principal houses being at Washburn, La Rose and Varna. At this time the end of the division was at Mason City, Ill.

Mr. Linebarger also engaged in the banking business at Stanford, and organized the first bank started there. As the business grew he became associated in the grain business, in addition to the points named, at Ashland, McLain, Fisher, Foosland, Rossville, Cooksville and other points. He was especially well known about Bloomington, and will be recalled by many as a large factor in the grain business in the central part of the state.

In 1894 Mr. Linebarger left the grain business, and a little later removed to Phoenix, Ariz., where he made his home until his death. He leaves a wife in Phoenix, a son, Almon H. Linebarger, at Phoenix, a daughter, Ida Darnell, wife of the grain dealer at McLean, Ill., and Joseph O. Linebarger, grain broker on the Chicago Board of Trade.

Kansas City is talking "corn carnival" for next fall.

AS SENATOR McCUMBER SEES IT.

Senator McCumber made an address at the annual meeting of the Iowa Farmers' Grain Dealers' Association at Fort Dodge, which took the form of a political stump speech of the "injustice" type. As such it was hardly worthy the dignity of the Senator and certainly is not worth repeating here, seeing that our readers readily understand the politician's inability to refuse to talk guff to any organization of farmers that can take delight in sitting "spell-bound," "thrilled" by such hardened binders as Dunn, Stickney et al. However, in the course of his address Senator McCumber took occasion to take up and answer seriatim a number of queries propounded by Secretary Wells in a circular letter addressed to the members of the Iowa Association for the purpose of eliciting information. This portion of the Senator's address may contain some things of interest, being in the nature of a digest of his bill and what he thinks it means. He spoke as follows:

Mr. Geo. A. Wells, being intensely opposed to Federal inspection, proposes a number of questions which the opponents of Federal inspection have urged. Every one of these questions can be fully met. He says:

"Senator McCumber of North Dakota contends that terminal elevators ship out more grain of the higher grades than they receive and that the farmers are robbed accordingly," etc. I desire to offer the following suggestions for your consideration:

I will take up these questions in their order. But first allow me to ask a few questions concerning his first statement which I have just read:

1. Is it true that terminal elevators ship out more grain of a high grade than they receive? His answer must be, yes—many times more.

2. Then, if that is true, does not someone lose just what the terminal elevators make by this?

3. If it is true and the farmers and independent shippers or foreign purchases or anyone who is compelled to purchase by grade are losers by this system, are they without any remedy?

4. If they have a remedy, what is it? Certainly the power that profits by their losses will never be the power that will institute a reform.

Now, I will answer his questions in detail:

"(1) Would a Federal grain inspector be more competent in exercising his personal judgment than the board of trade or state inspector, grain inspection being largely a matter of personal judgment, no positive scientific basis having as yet been established?"

Ans.—Yes, he would, for two reasons: First, he would be absolutely free from that subtle influence which bends the mind naturally, and probably always, in cases of doubt, toward the interest which has favored him with an appointment; second, because there is a scientific basis sufficient for the requirements already worked out by the department, and he would be compelled to learn and to apply the information secured by the department through its laboratories which are being established over the country for the very purpose of determining character and grades.

"(2) Considering the fact that grain does change in condition, as by the absorption or evaporation of moisture, etc., would not the same difficulty involved in such changing of conditions exist under Federal inspection?"

Ans.—Yes, there would always be some difficulty. Federal inspection could not prevent grain from absorbing moisture. But where Federal inspectors would find wet or heated grain, such grain would be certified for what it would be at the time and thereby prevent the frauds that are perpetrated under the present system by falsely certifying the condition.

"(3) Suppose a country grain dealer bought No. 3 corn from a farmer, and when it arrived at market it inspected No. 4 corn, both inspections being Federal, would the Government 'make good,' or would it be considered as merely performing a 'governmental function' with no liability for damage?"

Ans.—The supposition of this question evidences a total lack of information as to the intentment or effect of Federal inspection. There would be no Federal inspection at the country markets. Everyone knows that the grades that are allowed at the terminal markets are the grades that govern the country buyer. If he knows he can get honest grades, then he will be able to give honest grades, able to use his

own judgment. Under the present system he never knows where he is at, but he does know that on the whole the chances are that his grain will be undergraded at the terminals, and that consequently he must resolve every possible doubt against the producer.

The Government does not 'make good' if you lose by having a counterfeit bill imposed upon you. But the fact that the Government prints the money to be used, carefully guarding it against counterfeiting, and places its seal upon it and is constantly on the alert to detect and punish counterfeiters, protects the whole people against being defrauded by it.

"(4) Could the foreign buyer hold Uncle Sam responsible for delivery of grain of the quality represented by the Government seal of inspection?"

Ans.—No, neither can he hold the seller unless he can prove actual fraud. And with the inspector's certificate against him here the foreign purchaser would find great difficulty in establishing the fact that moisture or heat did not occur en route. So he never chances an action. Uncle Sam is not responsible if a barrel of spoiled meat is shipped, but the fact that he has placed his seal upon our exported meats has given a confidence to the foreign purchaser and has meant millions of dollars annually to the meat industry of the United States.

"(5) Federal inspection could have jurisdiction only over interstate grain, while the present system would no doubt still be maintained, thus making dual inspection with double cost and endless complications."

Ans.—The present system would not be maintained, for many reasons. Chief among them are, first, that 90 per cent of the grain handled at the terminals is interstate grain—either grain shipped in from another state or grain intended for shipment out of the state in which the terminal is located—and no one would ever attempt to maintain a separate system for the other 5 per cent; second, with the confidence that always follows Government certification you could not get a seller to consent that his grain be graded by any other system, and you could not get a purchaser who wanted what he contracted for to purchase by any other system.

"(6) The McCumber Bill gives the Secretary of Agriculture practically unlimited authority in the establishment of the proposed Federal inspection of grain. Is this advisable?"

Ans.—What authority would you take from him which the bill gives? The principal authority is first, to take the present commercial grades of grain and inspect and grade honestly and fairly under them; second, to secure greater uniformity, if practicable; thirdly, to see that both the producer and the purchaser deal with the same grain. I know of no power given that is not proper.

"(8) Do we want a system established that if it should prove impracticable cannot be removed, but which would cost the farmers of this country a vast amount of money?"

Ans.—By what process of reasoning can you imagine that Government inspection would be impracticable? Why cannot the Government do just what boards of trade are doing? Why can't it fix grades just as well? Why can't it do much better? There is every reason for assuming that it can do better; there is no reason on earth for assuming that it cannot do as well. Would greater uniformity of grades be harmful? Would greater certainty be harmful? Would honesty of grades be harmful? Would any of these be impracticable? And to the extent that the Government would be able to secure these results, would it not be beneficial? How would the Federal system injure the farmer? It is somewhat ridiculous to me to see the people who have for years systematically robbed the farmer out of the proper grades of his grain assume now to be the guardians of his welfare.

"(8) Is it not a fact that there is an element of competition in the present system of inspection that accrues to the benefit of the farmer that would be removed by the Federal inspection?"

Ans.—No, it is not a fact that there is an element of competition in the present system that accrues to the benefit of the farmer. Certainly, if there were, Government inspection would not take it away. You grade his grain by board or warehouse commission and you buy grain by the grade you have put upon it, and all that he can get is the exchange price and no more, unless in a few instances some local miller, examining his grain, will pay a few cents more a bushel than the grade which has been placed upon it.

"(9) If in a general sense the profits in the present system of handling grain as between the farmer and the consumer are not excessive, how is Uncle Sam going to give the foreign

buyer more value for his money and at the same time give the farmer more money for his grain?"

Ans.—This question is founded on the false assumption that defrauding the foreign purchaser is perfectly legitimate and is nobody's business on this side of the Atlantic. The first answer to that question is that the profits of the terminal elevator crowd are excessive. That does not mean that the general profits of the grain trade are excessive. Every grade that the grain takes on at the terminal elevator over and above that which was given it when it went into that elevator is an illegitimate profit. You ask what Uncle Sam is going to give. My answer is that Uncle Sam is going to give the farmer a better price by giving him the grade of grain which his contract calls for. The profit of undergrading the farmer's grain does not go to the trade generally. It goes to the individual or the set of individuals who own the elevator where it is metamorphosed into the high grades. The profits secured by imposing a low grade on the foreign purchaser under a high-grade certificate do not go to the farmer; they go into the pocket of the one who has perpetrated the fraud and every fraud perpetrated upon a foreign purchaser which condemns our

market, and thus add considerable wealth for the farmers of the state.

WAGNER BROS.' FIRE.

A fire evidently starting at a leaking gasoline pipe in the engine room of one of Wagner Bros.' elevators at Storm Lake, Iowa, resulted in the complete destruction of that building, containing about 20,000 bushels of grain and a car of flour and feed. The fire was first discovered as it burst out of the engine room, and almost in a twinkling the building was a blaze from pit to cupola.

Although the volunteer fire department appeared promptly, nothing the men did was effective to save the building. The Wagner Bros. luckily found an opportunity to save their hooks and office fixtures, but were unable to rescue any of their stock. They figure their loss at \$7,000, of which \$4,500 is covered by insurance. Wagner Bros. have been established in Storm



BURNING OF WAGNER BROS.' ELEVATOR AT STORM LAKE, IA.

grain in his market and thereby diminishes the demand for American grain necessarily lowers the price of grain and the purchaser must in the end suffer.

WILL UTILIZE THE WASTE.

The screenings and other refuse taken from grain handled by the Northern Grain Company at Manitowoc are used in the production of a stock food concocted by a Milwaukee man, which the company is now feeding to a large herd of cattle and sheep.

Farmers and others who may not be aware of the value of this grain, unmerchantable for milling purposes, for feeding stock, may be interested in a recent discussion of the character and amount of screenings removed from wheat as it comes from the farms and country elevators. A few years ago, says the North Dakota Farmer, the samples of screenings from six different elevators in that state were examined. There was a total of 64 samples, and the average dockage by the elevators from which the samples came, on account of screenings, amounted to 1.55 pounds per bushel.

The following was an analysis for the feeding value of the samples then taken: Water, 8.41 per cent; ash, 6.27 per cent; proteids, 14.33 per cent; crude fiber, 7.17 per cent; fat, 2.23 per cent; nitrogen free extract, 61.59 per cent.

It will thus be seen that this product contains as much proteids as the average clover hay, or as much as low-grade wheat brands found upon the market. There is, therefore, being shipped out of the state a very large amount of valuable feedstuff which should go to fatten the stock of the state, and would be enough to fatten every animal that now finds its way to the

Lake for five years and have done a large business, which encourages them to rebuild, although this step has not as yet been decided upon. They will install machinery in the other elevator they own in the town.

FRAUDULENT WAY BILLS.

Laws that restrain human selfishness and greed are as difficult to enforce without evasions as it is to build burglar-proof safes that the "gentry" will not try to plunder. So it is not surprising to find the Commerce Commission called on to investigate violation of the laws forbidding the granting or accepting of rebates. At Richmond, Va., on February 19, H. O. Gates, a member of the city council of the Virginia capital, and an employe of W. R. Johnson, a wholesale grain merchant of the city, admitted to Commissioner Lane that he had worked up a scheme whereby his firm avoided the payment of published tariffs. He admitted that other Southern roads were defrauded out of large amounts, the plan being to allow the Chesapeake & Ohio to receive its full published rates on all shipments, but allowing the fraudulent waybills to go through to the detriment of the other roads.

The other firms implicated in the alleged rebating are Warner Moore & Co., T. M. Perkins and W. S. Forbes. Johnson is said to have saved on the average \$450 a month on these rebates.

Several minor officials of the road testified to the manner which the scheme was worked out in the office of the C. & O. The case is unique in that it is the first time on record that one company has allowed rebates at the direct expense of the other roads working in conjunction with it.

AGAIN, THE FLY.

His royal high,
The Hessian fly
Is again making the wheat pit sigh.
Still below ground and e'er time to fly,
His royal high, that pestiferous fly
Threatens the wheat plant that never says die;
But as spring draws nigh,
The sun gets high,
That dear little plant will make a rush toward
the sky.
The Hessian fly on his back will fall
And the tumble bug will roll him into a ball;
Then the farmers with their reapers will be astir
in the fields,
The golden grain will bow low to the reels,
The bugs and flies will abandon their deals,
A victim to birds in savory meals—
"In the good old summer time."

—From the Ballads of Oswald Graves, Poet Laureate of the St. Louis Pit.

COMMUNICATED

[We invite correspondence from everyone in any way interested in the grain trade on all topics connected therewith. We wish to see a general exchange of opinion on all subjects which pertain to the interest of the trade at large, or any branch of it.]

TO BUILD A LINE OF ELEVATORS.

Editor American Elevator and Grain Trade:—We have changed again and are now handling a feed and grain business for ourselves, and expect to build a line of elevators through the Panhandle. We soon found that a line of elevators was more profitable than the milling business. Our grain business has been very good for the three weeks we have been doing business, and we think we see very bright prospects. The condition of the growing wheat is splendid and with another spring rain, barring other misfortunes, we will have a splendid crop and a heavy acreage compared with last year.

Sincerely yours, C. A. REX & CO.
Amarillo, Texas.

NEWS FROM NORTH DAKOTA.

Editor American Elevator and Grain Trade:—Grain receipts have been very light the past few weeks and will likely remain so until after seeding. Many elevators along the line of the Great Northern Railway are being closed as fast as they are cleaned out. The Gruber Elevator at this station closed the first of March.

The farmers in this vicinity held a meeting on Saturday, February 29, at this place, for the purpose of considering the organization of a farmers' elevator company, but little was accomplished.

The writer has just returned from Minneapolis, where he has been for the past two months on account of a surgical operation. We have fully recovered to our former good health.

Yours truly, HARRY M. CASE,
Pres. Case Elevator Co.
MeVille, N. D.

N. H. A. ANNUAL MEETING.

Editor American Elevator and Grain Trade:—Inasmuch as it seemed to be the prevailing opinion among the members who were present at the convention at Niagara Falls last July that our annual meeting was held too early, the board of directors, who, by the authority of the by-laws are directed to name the time and place to hold the annual convention, took into consideration the sense of the meeting on the last day at Niagara Falls, and have decided to hold the next convention at Cedar Point, Ohio, July 28, 29 and 30, 1908.

The expressed wish of the committee on place and the convention was for Columbus, Ohio; yet, in order to meet the dates asked for by the convention, it was found that the place and time could not be adjusted conveniently, and we believe the directors have been most wise in their selection.

The affairs of the Association you are kept in touch with generally through the able secretary, yet for your information I would say that our grades committee is doing excellent work in trying to secure the adoption of the National Hay grades in markets where they are not now in force, and it is hoped that they will be successful.

Our arbitration committee, as usual, proves to be a most efficient body for all concerned. The transportation committee and the special committee appointed by the board of directors at Cincinnati on October 3, 1907, are acting in unison as regards differences between the Association and carriers, using their best efforts in the interests of all concerned.

It is with a good deal of gratification, also, that the executive announces that of all the committees appointed by him none have declined and all are doing their best, "not for self, but for all."

Many members have requested an official statement from the president covering the present condition of the hay trade, financially and otherwise. Believing that no one would be able to state anything that would be of benefit to the membership, taken as a whole, I have refused and refrained from making any at all, feeling confident that each one is best able to judge of the conditions in his own particular section.

We are particularly anxious to have our membership reach 1,000 before the next convention; therefore, I beg to enlist your assistance and cooperation to that end. I am ready and willing to give consideration to any subject from members at any time.

Respectfully yours, CHAS. J. AUSTIN,
President.
New York City.

HAY AND BEANS IN MICHIGAN.

Editor American Elevator and Grain Trade:—J. A. Heath, secretary-treasurer and general manager of the Richmond Elevator Company, one of the largest buyers of hay, grain and beans in Michigan, operating thirty stations throughout Macomb, St. Clair, Sanilac and a part of Oakland counties, in an interview with your correspondent with regard to the present hay situation, and the rather unlooked-for (among the farmers) slump in prices, gave a few of the reasons, as follows:

"Many farmers based hay values on the fact of a light corn and oat crop, and held on to their hay last fall. For at least two previous years early sellers had failed to realize on a later rise in prices. In some hay-producing districts the crop was underestimated; and where a shortage was expected good crops were gathered, and the high prices of last fall augured well for a still higher price in the spring. The financial depression following the panic of October, 1907, caused a general cessation of contract work, and large numbers of horses were laid off, their owners roughing them through the idle season on short rations. Thus the districts which last year were heavy buyers, comprising Michigan, western New York, the South and the Middle West, have not drawn on Eastern markets at all. All this tended to leave a large quantity of hay on the farmers' hands. Last fall the country was full of buyers, with few sellers. The situation is now reversed. There are anxious sellers, but coy buyers, and the outlook is for a still further slump of from \$2 to \$3 per ton in the near future, making in some cases a total loss of 50 per cent."

"Another feature of the situation is that cars were plentiful and easily obtainable last fall, for the first time in years, and shippers got stock into market without delay."

Mr. Heath estimates that there are fully 8,000 cars of hay to go forward still in farmers' hands in this territory alone, meaning a loss of about \$1,000,000, a loss which might have been avoided by early sales.

Asked about the mooted hay weighing question—whether buyers should weigh hay when delivered, or leave weight to the balers' and farmers'

honesty, he answered that, "Custom has established the rule whereby the weight of hay is left to the farmer, although by right hay should be weighed the same as grain or other products are weighed, when delivered; but sellers rarely betray the confidence of a trustful buyer; and it would be impossible to maintain scales at the thirty stations where stock is delivered." Mr. Heath is ex-vice-president of the National Hay Association, and is thoroughly posted on conditions at all points. His territory is covered each season by experienced buyers who contract the growing crop. A fair price is offered, and the losers are usually those who wait and are affected by the fluctuations in the market.

As to beans, Mr. Heath, who is president of the Michigan Bean Jobbers' Association, said:

"Few persons realize that Michigan grows more beans than all the other states in the Union combined; and the prospects are that a much larger acreage than ever before will be planted this season, as farmers who were slow to see the benefits derived from growing this crop, now that they have experienced the favorable outturn and have realized that beans improve rather than deteriorate the soil, are rapidly increasing their acreage."

"Growers in this section were very fortunate last season in the quality of their stock, other sections suffering from unfavorable weather which greatly damaged and in some cases completely destroyed their crop, harvest time being particularly rainy and bad."

Beans as a food may be spoken of as "cosmopolitan," this brain and body building leguminous seed being eaten in every country on the globe. It is interesting to know that Cuba is one of our largest buyers of beans. Michigan claims the "bean belt," her soil containing just the right soil properties for growing the top-notch grade of beans in the whole United States.

Present indications are for a continuance of a good market for the balance of the season. Stocks in the farmers' hands are light, and the only thing that mars the brightness of the market is the large importation of foreign beans, brought about by the high prices paid at the terminal markets. Mr. Heath sees no prospect of a further advance in prices of the home-grown stock. Beans are now being bought for \$1.85 to \$2 at the company's warehouses, as against \$1.50 last year.

The Richmond Elevator Co. maintains several "pickeries," employing a large force of men helpers, as well as girls and women pickers; the work is light and remunerative and is robbing the local "hired girl" market to a large extent. The company sells directly to the Van Camps and other canners of pork and beans.

At the Saginaw meeting Mr. Heath sounded a note of warning concerning the importation of foreign beans, as follows: "I was very much interested this morning to learn that there is a likelihood of considerable competition this year through large importations of foreign beans; and I think it would be well for all of us to bear this in mind, as it will very likely be a strong factor in influencing Michigan and New York shipments." The cloud then no larger than a man's hand has reached large proportions and is threatening to darken the brightness of the bean market sky.

Lenox, Mich.

E. A. REED.

SOUTH AMERICAN ELEVATOR

The Argentine government, says the Review of the River Plate, has approved the arrangement entered into between Messrs. Garratt, Marston & Co. (of Rosario and London) and the Rosario Port Company, whereby the first named are granted permission to build a grain elevator at the point at present occupied by shed No. 26 of the Buenos Ayres & Rosario Railway, through which they undertake to ship a minimum quantity

of 200,000 tons of cereals per annum, paying a royalty to the Port Company of 60 per cent of the port's ordinary shipping charge and 15 cents gold per ton as haulage. This contract is for a term of seven years, and will take effect from October 16 next.

It is expected that the elevator will be ready to work in April or May of this year, but, up to October 15, the royalty to the Port Company is covered by the general concession of reduced shipping charge granted in view of the Port Company being unable to do the work.

GOVERNMENT ELEVATORS.

While the Royal Commission in the Grain Trade of Canada, after an exhaustive examination into all phases of the grain question, reported adversely to the ownership of grain elevators by the government, believing that "it is possible to obtain a good service from these elevators under the present [railway] ownership by having a more thorough system of supervision and control," the grain growers of the Northwest are still clamoring for government ownership. The farmers' organ there says there is no "prejudice against the elevator system on account of injustice;" the demand grows out of the "necessity to economize in handling grain."

The reason for this economy is this: "For a country that has high standards of living, that is situated far inland, and that must put its produce on the world's market in competition with lower orders of humanity, and side by side with a similar product from seaboard countries, economy in handling is imperative. Figures show that our present method is expensive, and without any figures, anyone can see that from three to ten elevators on a local market, doing the work that, with modern machinery, can be done with one or two, is a waste of energy and time. Probably, if the companies now doing the work of handling grain had no other object in view than simply to take wheat from farmers' wagons and get it to market in the cheapest and quickest manner, there would be no demand for the railway companies or the government to consider the elevator problem. But the elevator companies will never be content to be simply warehouses of grain; they are interested in getting possession of wheat at a low price and selling it at an advance."

BUCKET-SHOPS HIT.

The bucket-shops of the Twin Cities were badly hit by a recent decision of the District Court of Hennepin County, Minn., which will prevent them from using Minneapolis Chamber of Commerce quotations.

The action was brought against one W. S. Daggett, and was a petition for an injunction to prevent the use of the Chamber's figures. The defense admitted a portion of the complaint, but insisted that they had a right to use what is termed the "gossip service," which contains the "fifteen minute" quotations, and is furnished to many parts of the state and to numerous subscribers by the telegraph companies, commonly known as the "ticker" service.

The court, however, held the service cannot be so used; that the quotations are the property of the Chamber of Commerce, and that the telegraph companies can transmit the service only upon an express contract which stipulates that the figures are for the recipient alone.

The court therefore restrains the defendants from using any ticker service in its business, from posting any prices that claim to have a basis on the Chamber, from allowing a wire in their office over which any Chamber quotations might be sent, and from holding out to any one that they have any connection with or receive prices from the Chamber of Commerce.

Send us the grain news from your neighborhood.

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WHY OUR FARMERS SHOULD DEMAND HIGH GRADE SEED.*

BY DR. J. W. T. DUVEL.

U. S. Department of Agriculture, Washington, D. C.

If the successful farmers of the United States were asked to name, in order of importance, the most essential factors in crop production the first answer would be—good, germinable seed. That the use of low-grade seed results in the loss of millions of dollars annually to our farmers is unanimously recognized by those who have given the matter consideration. No factor is more frequently overlooked by the average farmer than that of careful seed selection. This is particularly true of the seeds of the grasses and clovers. It is, however, gratifying to know that during the past few years the corn growers throughout the principal corn-producing states have made rapid progress in the methods of selecting better seed corn. That the members of the Indiana Corn Growers' Association are taking an active part in this work is shown by the yield per acre during the year just ended. Your president told us this morning that Indiana and Illinois stand together at the head of the list (of the principal "corn states"), showing an average yield of 36 bushels per acre. This, however, is not as it should be. I believe the time is not far distant when the average yield per acre throughout the corn belt will be 60 or 70 bushels. Many of our good farmers are producing this much and more to-day.

With the seeds of the grasses, clovers and alfalfa, a very different condition exists. As a rule, farmers are content to purchase the seeds offered and to accept the statement of the seedsman or local merchant as to their quality. The time is at hand when our farmers must take a firm stand and rebel against the sale of low-grade and worthless seed by unscrupulous dealers—seed which is not of the quality represented; seed which contains high percentages of dead seed, numerous kinds of noxious weed seeds, chaff, dirt, sticks and worthless trash, for which you are compelled to pay fancy prices.

You are corn growers, and as such it is absolutely essential that you grow clover or some of the leguminous crops in order to maintain the fertility of your soil. The growing of more clover (not more acres) means a larger number of marketable ears of corn and a fewer number of nubbins. Better advice was never more clearly and truthfully given than when Henry Wallace said: "Above all things, grow clover, and put fertility into your soil, happiness into your home, money into your pocket and growth into the live stock."

During recent years a very general complaint has been a failure to secure a stand of clover. These failures have been attributed to clover-sick soil, unfavorable weather conditions at time of seeding, drouth during early summer, clover midge and other factors which undoubtedly must be reckoned with. The same is true with alfalfa, perhaps our most valuable forage plant. The difficulties of securing a stand of alfalfa have been so strongly emphasized that most growers have come to expect success only after two or three failures. To those of us who have studied carefully the quality of the seeds sold or offered for sale on the open market, it is only surprising that the number of failures in the attempts to grow grasses, clovers or alfalfa are not much greater than at present reported. Analyses of samples show that millions of pounds of seed are sold annually in the United States, the sowing of which must inevitably result in a failure to secure a stand.

ANALYSES OF SAMPLES OF COMMERCIAL RED CLOVER OBTAINED IN THE OPEN MARKET.

	Secured from a Seedsman in Southern Indiana			Secured from a Seedsman in Nort'n Indiana	
	1	2	3	4	5
Broken seeds, sticks, etc.	.8%	3.8%	3.8%	6.3%	3.1%
Seeds not red clover,...	4.3%	18.1%	15.7%	4.8%	6.7%
Kinds of weed seeds ...	8	27	36	20	17
Weed seeds per pound ...	20,400	46,800	70,740	32,470	15,930
Pure red clover seed ...	94.9%	83.1%	80.4%	88.9%	90.2%
Germination	84.0%	61.0%	51.0%	80.0%	81.5%
Selling price per bushel ...	\$7.25	\$6.50	\$5.75	\$7.50	\$7.20
Actual cost per bushel of the pure seed which would grow	\$9.09	\$12.82	\$14.02	\$10.55	\$9.79

The results of the detailed analyses of a few samples secured from dealers within your own state will give you a better idea of the quality of seed which is commonly offered by dealers.

*An address delivered by the author at the meeting of the Indiana Corn Growers' Association held at Lafayette, Indiana, on January 15, 1908.

For this demonstration I have used red clover, but the same facts will apply to practically all of the smaller agricultural seeds.

In the foregoing table the first three analyses represent three lots of seed as graded and offered for sale by a seed firm in southern Indiana. The last two analyses represent the quality of seed handled by a seedsman in the northern part of your state. The samples for the analyses were secured in March of last year, consequently the prices are much lower than the present market value of red clover seed.

It is reasonable to assume that the bulk of this seed was sold last spring to farmers of Indiana or adjacent states, and for that reason the results of these analyses have been used in making up the chart. Those who purchased seed from lots 2 and 3 and, possibly, 4 and 5 are no doubt wondering why they failed to secure a stand of clover last season. Looking into the details of the analyses, we find the following:

Broken Seeds, Sticks, Stones, Etc.—Inert matter of this character is always present in commercial seed in varying quantities. In high-grade seed the amount should not exceed 2 per cent and in strictly first-class commercial seed it should be less than 1 per cent. At this time, seed-cleaning machinery is sufficiently perfected that practically all inert matter can be removed, if the seedsman so desire. To the contrary, numerous instances are known where trash of this kind was purposely mixed with seeds in order to increase the profits of dishonest dealers. Large quantities of ground quartz rock, graded into suitable sizes and sometimes colored to resemble certain seed, have been sold to seedsman for mixing purposes. It is believed, however, that this is practiced less frequently to-day than it was a few years ago.

In the majority of cases the monetary loss due to the presence of broken seed, dirt, stones, etc., is comparatively small, yet it is a factor which cannot be overlooked by the successful farmer. In sample No. 4, the 6.3 per cent of dirt and rubbish represents a value of 47 cents on every bushel of seed purchased. Moreover, 6.3 per cent more seed is required if the rate of seeding is to be the same. The greatest significance, however, lies in the fact that dirty seed almost invariably contains large quantities of weed seeds.

Seeds Not Red Clover.—In the analyses of the samples shown in the table, the amount of seed other than red clover varies from 4.3 per cent to 15.7 per cent. These include seeds of numerous kinds of weeds, together with those of valuable forage plants, such as alsike clover, timothy, red top, etc. Farmers are frequently urged to buy red clover seed containing high percentage of timothy seed on the plea that it will give rise to better pasture and better feed. This question each individual farmer must settle in accordance with his own needs. It is certain that the chief aim of dealers who make such recommendations is to sell you timothy seed which costs them 2 or 3 cents per pound, at clover seed prices, 12 to 20 cents. If you desire a mixed pasture or hay, buy the seed separately and do your own mixing.

Weed Seeds in Commercial Seeds.—In the table is shown the number of kinds of weed seed contained in the different lots, varying from 8 in No. 1 to 36 in No. 3. There is also shown the number of weed seeds contained in one pound of the clover seed. In this connection, it is necessary to state that from 250,000 to 275,000 clover seeds of fair average quality will weigh one pound.

It is not necessary to go into detail concerning the number and kinds of weed seeds contained in each of the five lots of seeds represented in the table. Let it suffice to take, by way of illustration, lot No. 2, containing seeds of 27 different kinds of weeds, with a total of 46,800 weed seed in every pound of the mixture that was sold for clover seed. The customary rate of seeding red clover is ten pounds per acre. At this rate of seeding, 468,000 weed seeds, representing 27 different kinds, would be distributed on each acre as follows: Buckhorn, 144,000; lady's thumb, 76,500; black-seeded plantain, 72,000; foxtail, 44,100; lamb's-quarters, 36,000; curled dock, 33,300; mustard, 13,500; slender paspalum, 13,500; bracted plantain, 9,000; dodder, 4,500; small crabgrass, 2,700; pigweed, 2,700; sorrel, 2,700; trefoil, 1,800; witch-grass, spreading panicum, red pimpernel, catchfly, sticktight, crabgrass, large-seeded false flax, barnyard grass, spurge, knot-weed, Linum species and an undetermined wild grass, 900 each. If uniformly sown, the average would be little more than 10 weed seeds on every square foot or 125 weed seeds for the amount of space given to one hill of corn.

The foregoing list contains the names of the seeds of many bad weeds, but the presence of the dodder seed (9,000 to be sown on each acre) would in itself be sufficient cause for rejecting the sample. Several species of dodder are para-

sitic on clover and alfalfa plants, and it is unquestionably the most troublesome and destructive weed with which growers of clover and alfalfa will have to contend in the future.

A few years ago only occasional samples of clover and alfalfa seed were found to contain dodder, but owing to the large importations of low-grade seed the presence of dodder has become extremely common. Of 1,217 samples of red clover seed from various sources, examined in the seed laboratory last year, 405 samples, or 33.3 per cent, were found to contain dodder. Of 399 samples of alfalfa, 191, or 48 per cent, contained dodder.

For detailed description of the dodders and methods of eradication, see Farmers' Bulletin No. 306, U. S. Department of Agriculture.

Purity and Germination.—The percentage of purity shows the amount of clean seed of the kind designated contained in the sample, whether it be good plump seed or shriveled seed. The germination indicates the pure seed which is capable of growing under favorable conditions.

Consequently, the product of the percentage of germination multiplied by the percentage of pure seed gives the actual value of the sample, disregarding the evil effects resulting from whatever weed seeds which may be present. On this basis, the actual value of the five samples represented in the table are 79.7 per cent, 51.8 per cent, 41 per cent, 71.1 per cent and 73.5 per cent, respectively. From this it can be readily seen that the use of seed from lots 2 and 3 must inevitably result in a failure to secure a stand. Lots 1, 4 and 5 fall far below high-grade seed, which should show an actual value of from 90 to 95 per cent.

From the actual value of the sample is calculated the cost of the good seed which will grow.

Adulterated Seed.—The wilful adulteration of seeds by the introduction of less desirable and cheaper seeds of a similar appearance has become such a common practice that it is necessary to discuss it at this time. The seeds which are most frequently adulterated are red clover, alfalfa, Kentucky bluegrass and orchard grass. Red clover, when adulterated, is almost invariably mixed with trefoil. Adulterated alfalfa usually contains trefoil, though occasionally the burr clovers and sweet clover are used as adulterants. Kentucky bluegrass is adulterated with Canada bluegrass and occasionally a mixture of various grass seeds is sold as Kentucky bluegrass. Orchard grass is adulterated with meadow fescue, English rye grass and less frequently with Italian rye grass and some of the Brome grasses.

With the time at my disposal, it is not possible to give a description of all of the seeds which are used as adulterants. But, in order to give you a clear idea of the detrimental results of these fraudulent practices, I will discuss one or two very briefly.

Yellow Trefoil.—In size it is about midway between the seed of alfalfa and red clover. The color resembles very closely that of good fresh alfalfa seed, though it has more of a light olive-green color. The shape is different from any of the other seeds, but to one not accustomed to studying seeds very carefully, these differences are not readily detected.

Yellow trefoil is a low growing plant and is very much prized as a sheep pasture on some of the poorer mountainous soils of Europe. Its use, however, is not desirable where either clover or alfalfa will grow, and the seed imported into the United States at a cost varying from 3½ to 5 cents per pound is used almost exclusively for mixing with alfalfa and red clover. The degree of adulteration varies from 2 or 3 per cent to 40 or 50 per cent. In the case of alfalfa, which lends itself much more readily to the adulteration with trefoil than does red clover, the pure trefoil seed is sometimes sold as high-grade alfalfa.

A very conservative estimate would fix the area which was seeded last year with adulterated red clover and alfalfa seed at 25,000 acres. It is almost certain that 80 per cent of this area, or 20,000 acres, will result in a failure to secure a satisfactory stand.

Canada Bluegrass.—From 600,000 to 800,000 pounds of Canada bluegrass seed are brought into the United States yearly. Investigations have shown that practically all of this seed is either mixed with or sold outright as fancy Kentucky bluegrass, at a profit of 100 per cent or more on the original cost of the Canada bluegrass seed.

Of 251 samples of so-called Kentucky bluegrass seed obtained two years ago in the open market by agents of the United States Department of Agriculture, 41 samples were found to be adulterated with Canada bluegrass seed. The degree of adulteration varied from 8.67 per cent to 89.91 per cent. Six of the lots were clear cases of substitution, in that more than 75 per cent of the seed consisted of Canada bluegrass, the remainder of the sample being principally chaff, dirt

and other impurities. Of 429 samples secured by agents of the department during the summer and autumn of 1907, only eight were free from all traces of Canada bluegrass; 110 samples were adulterated with Canada bluegrass in amounts over 5 per cent; 32 samples, or nearly 8 per cent of the entire number, contained no Kentucky bluegrass whatever. A list of the names of the dealers having sold this seed is contained in Circular 24, office of the secretary, U. S. Department of Agriculture. For data of earlier investigations see Circulars 12, 14, 15, 13 and 20. The seeds of these two bluegrasses are so similar in color, size, shape and general appearance that one can be very easily substituted for the other. It is, therefore, not safe to purchase from any quarter seed which is offered as Kentucky bluegrass without first submitting a sample for analysis to the director of your state agricultural experiment station, or the United States Department of Agriculture.

In sections where bluegrass is called for less frequently and the seed not so well known, some seedsmen are even so bold as to sell a mixture of other grass seeds as Kentucky bluegrass. To illustrate more clearly, I beg to give the results of the analysis of seed which was purchased in September last from a seedsman in the northern part of your state. The seed, which was purchased for Kentucky bluegrass, at a cost of 10 cents per pound, contained the following:

	Per Cent
Timothy, seed and chaff.....	63.0
Red top, seed and chaff.....	21.8
Other seeds, dirt, sticks, etc.....	14.7
Total.....	99.5

The remaining ½ of 1 per cent consisted of Kentucky bluegrass, Canada bluegrass and one of the wild bluegrasses.

I think you will all agree that seedsmen of this type are to be classed as most "undesirable citizens." The plea of ignorance is no excuse. A man should know at least something of the quality of the goods he is selling to the public. A firm of this kind should be prosecuted to the fullest extent of the law and, if possible, be denied the use of the United States mails.

Where and How to Secure High-Grade Seed.—The question is always asked—and, I dare say, is now troubling you—where can we get good seed? In answering this question, it is always necessary to remember that some seedsmen sell all poor seed and that all seedsmen sell some poor seed. It is gratifying to know that the majority of our seedsmen handle seeds of fair quality. On the other hand, it is to be regretted that they are likewise compelled to offer low-grade seeds, in order to meet the demand of so many farmers for cheap seeds. The time has come when the sowing of low-grade seeds must be discontinued, if we are to raise the standard of productiveness of our soils. Low-priced seed is almost invariably low-grade seed, poor in germination, with millions of weed seeds and large quantities of other trash in every bushel. I do not mean to convey the impression, however, that high-priced seed is necessarily of the best quality. This is usually the case, but there are hundreds and thousands of exceptions. Neither do the trade names, "Choice," "Prime," "Fancy," "Extra," "Recleaned," tell the quality of the seed.

Grass and forage plant seed should be purchased on sample and subjected to a most critical examination. If you are not in a position to make this examination yourselves, send the sample to your state experiment station or the United States Department of Agriculture, with a request that it be examined for purity and germination. This can be done with better satisfaction to yourselves, as well as the director of your experiment station, if the matter is put in the hands of the secretaries of your local agricultural societies. The work of testing will be simplified, and by buying in larger quantities it will be easier to get seed of good quality. The analyses of samples are made without charge and the use of a little time and a few postage stamps will mean fewer failures during the coming season.

Seed Legislation.—The final outcome of the bad condition of seed trade is rigid seed legislation, both state and national. I believe that thousands of farmers in the state of Indiana would willingly pay \$12 per bushel for clover seed this spring, provided that they had any guarantee that it would be high in purity and of good, strong germination.

To my knowledge, there is not a single seed dealer in the United States to-day who guarantees the percentage of purity or germination of any kind of seed he sells. The majority of the packages, however, either give no information as to quality or contain a clause similar to the following: "We give no guarantee, either express or implied, as to description, quality, productiveness, or any other matter of any seeds, bulbs or plants we

send out. If the purchaser does not accept the goods on these terms, they are to be returned at once."

All of the countries of Europe, with the exception of Spain and Turkey, have seed testing stations and practically all seed is sold under a guarantee. Within the past three years Canada has enacted a very strict seed law, which is proving of value to both farmers and seedsmen. With the European seed control and the strict Canadian seed law, the United States has become the dumping ground of the low-grade seed of both Europe and Canada. Furthermore, our poorest grades of seed are kept at home, while the best American seed is exported to the countries whose farmers are protected by effective seed laws.

During the year 1906, the last statistics available, the United States imported nearly 8,000,000 pounds of clover seed and at the same time exported nearly 4,000,000 pounds. Of the 8,000,000 pounds imported, nearly 1,000,000 pounds, representing 61 consignments, showed only 74.06 per cent of pure clover seed, of which only 43.16 per cent was capable of germination under favorable artificial conditions. The actual value of this seed as determined by the pure seed which would grow was less than 32 per cent. The average number of weed seeds in each pound of the so-called clover seed was 51,597. Two of the consignments showed 50 different kinds of weed seeds, and some as many as 8,000,000 weed seeds per bushel. The weed seeds contained in these 61 consignments of low-grade seed would, if planted 1 inch apart, extend 32½ times around the earth. But they were all purchased at from 12 to 20 cents per pound, sown in soil in our clover producing states, with results which need no explanation.

Some Federal seed legislation is necessary to prevent the importation of low-grade seed and worthless trash of the character above described. Until such legislation is enacted, screenings and low-grade seeds carrying countless millions of weed seeds and immense quantities of other rubbish will continue to be imported and mixed with all grades of American seed and distributed throughout our states.

For a successful state seed law but very few factors are necessary. If the director of your agricultural experiment station is given authority and funds to secure samples of seed in the open market, make analyses and publish the results of the analyses, together with the names of the dealers, the quality of the seeds sold within your state would be greatly enhanced. If the seedsmen were required to specify, in percentage, the purity and germination and likewise to indicate the presence or absence of seeds of certain noxious weeds, the failures would be exceedingly rare.

[From Bul. 117, Kansas Experiment Station.]

TO MEASURE CORN IN THE CRIB

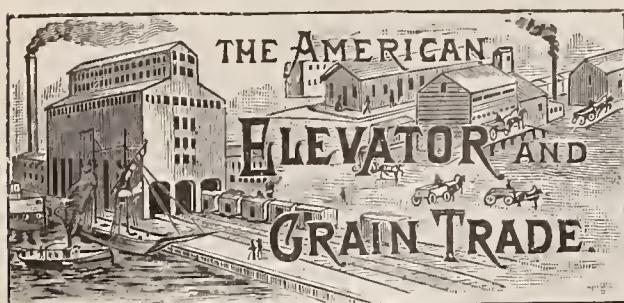
BY A. M. TEN EYCK AND V. M. SHOESMEK.

It is usual to calculate a bushel of ear corn in the crib as 2½ cubic feet in volume. In Prof. C. S. Plumb's book on "Indian Corn Culture," he gives this rule for measuring corn in the crib:

"Multiply the length, breadth and height of the crib together in feet to obtain the cubic feet of space it contains. Multiply this product by 4, strike off the right-hand figure, and the result will be the number of shelled bushels."

It will be observed that this rule really figures 2½ cubic feet of the ear corn as equal to a bushel. It is only approximately correct to calculate the number of bushels of corn in the crib in this way. If the corn is dry and sound, it will usually pay the seller to weigh the corn rather than to sell it by measure. If the corn is shelled, fifty-six pounds is a legal bushel, but with ear corn the weights figured for a bushel vary according to the dryness of the corn. It is usual to allow seventy pounds of ears for a bushel of shelled corn if the corn is dry and sound, but when husked and hauled from the field, corn often contains a high percentage of moisture, and the weight required for a bushel often varies, at husking time and during the fall and early winter, from seventy-five to eighty or ninety pounds. Doubtless, also, if new corn is sold in the crib by measure it would be fair to allow five to ten per cent greater volume for the measured bushel, say, 2½ to 2¾ cubic feet.

Judge Linn of the Superior Court at Olympia, Wash., has just handed down a decision sustaining the right of the State Railroad Commission to compel the railroad companies to fix joint rates on freight. This ruling is in direct opposition to that of Judge Hanford, in the United States court a week before, and the outcome is awaited with much interest.



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CHICAGO, ILL., MARCH 15, 1908.

Official Paper of the Illinois Grain Dealers' Association.

THE ILLINOIS WATERWAY.

Among the items on the program of the farmers' elevator association meeting at Bloomington recently was an address by Hon. Cicero J. Lindley on the Illinois River waterway project. Mr. Lindley and his fellow member of the legislature, Mr. Adkins, it appears, are to make other speeches through the state in advocacy of the \$20,000,000 loan for a canal to be built by the state of Illinois. In order to do this work, the people must vote the supplies of money, or credit; and the project will be urged on the ground that the improvement will actually cost the state nothing, since the water power created will not only pay the cost of the work but be thereafter a perpetual source of state income.

Now, far be it from our purpose to discourage this great work, but at the risk of appearing singular, it must be here suggested that not only the gentlemen named, but his Excellency the Governor, Congressman Lorimer, and others, are mistaken about the state's coming into possession of the water power even should it build the dams and create it. Water power rights in Illinois, as in most states of the Union, are easements of the riparian ownerships, even on navigable streams or streams made navigable by the Government, and these rights cannot be acquired by the state in any other way than by direct purchase at the owners' price. No condemnation proceedings will lie against them. The United States Government has always recognized this legal fact, and the water powers created by river improvement appropriations in no case belong to the Government.

Now, the Illinois waterway should be constructed, but in urging the people of Illinois to put \$20,000,000 into such a project they should

not be led to do so under the false impression that the state thereby would acquire the water-power rights on the river, for such is not the law. If Illinois advances \$20,000,000 for this work (and it would be well worth the cost, if the Erie Canal shall be worth \$101,000,000 to New York), the people must expect to pay that money absolutely, with not one penny of drawback in the way of revenue from water power, which would be the absolute property of the shore owners.

ANTI-FUTURES LEGISLATION.

The Chicago committee sent to Washington to oppose the Scott-Burleson anti-futures bills returned home, believing that no such laws would go upon the statute book, the President himself having assured them substantially that he would approve of no legislation that would cripple the regular exchanges, much as he desires to restrict "gambling." Since this form of "gambling" cannot be curtailed without also destroying the necessary functions in trade of the exchanges, and as it seems the President now understands that fact, if he has not, indeed, understood it all along, the danger of either of the bills becoming law is quite remote.

The resulting danger is that the desired legislation to put the bucket-shops out of business may also be abandoned, owing to the timidity and the density of the average congressman, who being the embodiment, as well as the slave, of all the narrow prejudices and ignorances of his constituency, is, therefore not always sufficiently clear in his own mind to draw the proper distinction between the bucket-shop and the lawful exchange, nor brave enough to vote his convictions in the face of a noisy though perhaps limited demand from home for drastic legislation.

If the bucket-shop should be outlawed by Congress, as the lottery is now penalized, most of the evils of grain speculation, as seen by the people at large, would probably disappear, and with them much of the prejudice against the exchanges. But where the bucket-shop operates openly in country towns and small cities where there are really no bona fide speculators in grain or stocks, it is idle to attempt to differentiate between it and the regular exchanges; the good and the bad are classed together, and both set down as nuisances.

A GREAT FOLLY.

In view of the awful condition of things in the tobacco district of Kentucky, one can hardly imagine anything more fatuous than the pretensions of the leaders of the Society of Equity that the farmers joining that organization can "control prices." Even with the shotgun and the torch as their aids, such an attempt in one small district of one state to control the price for one minor product has been a horrifying failure, which has wet the unhappy land with blood and seared many a man with the brand of Cain.

In Texas a similar society, called the Farmers' Union Warehouse Building Company, made a like attempt to control cotton prices, only to lead its members into profitless and "dead-horse" debts for several hundred buildings, for money advances at 8 to 12 per cent by bankers

for carrying charges, all to be paid with cotton worth less now than when picked.

In Wisconsin, where the Society has been working, farmers have recently been unloading barley at 60 to 68 cents which they might have sold at \$1.08 earlier in the season had the Society not issued orders to hold for \$1.25.

It is all a fallacy of the most pernicious type, and yet such great newspapers as the Chicago Record-Herald and the New York Journal of Commerce have given their assistance to the perpetuation and extension of the folly by treating the Society and the vaporings of its simple-minded supporters seriously, instead of treating it all for just what it is—a unique and demagogic form of getting subscriptions to a certain "farm" paper which has had itself made "official organ." Of all the "brain storms" which have afflicted the American farmer in recent years nothing has contained quite so much of unrelieved error as this Society of Equity.

SEED CORN.

It is hardly necessary to remind grain dealers in the corn belt that seed corn of good quality is very scarce all through the country. The statement made a few days ago by Prof. G. I. Christie, superintendent of agricultural extension at Purdue University, will answer for the greater part of Indiana, Illinois and Iowa. "The seed corn of the average farmer," says Professor Christie, "is in a serious condition. Germination tests made by the experiment station show that the vitality is very low and that special care must be given to the selecting and testing if a good stand of corn is to be secured."

In the lectures and demonstrations by the station teachers the attempt has been made during the past winter to present practical methods by which the best seed corn might be obtained; but it is now time for dealers to lend a hand by further warnings to the always large body of incredulous and negligent and "cock-sure" farmers that unusual care must be exercised this spring if the crop of 1908 is to be up to the average.

CORN DRIERS AT WORK.

Corn shrinks, we are told, about 1 per cent a month; at which rate it would take a large part of the current corn crop about a year to come into condition to go into store or for long-distance transportation. Under the circumstances the drier must be relied on; and the market without drying facilities has been in a bad way. The unusual quantity of moisture in corn, too, made the operation of the driers less effective than usual during the winter, since the longer time required to remove the surplus moisture has somewhat reduced their capacity and rendered the work less certain unless carried on with more than common care and judgment. Our Toledo correspondent wrote in February that even "kiln dried" corn had been known to mold during the winter.

The absence of drying facilities at some of the ports was particularly emphasized last winter by the conditions at Philadelphia, which has no drier, and at New York, where there is only one private drier of 6,000 bushels' capacity only. As only dried corn could be ex-

ported, corn receipts at both places materially declined and will be light until the naturally cured corn shall begin to arrive next summer. Meantime New Orleans, with ample drying facilities, was able to outbid even Chicago, the surplus from whose driers is all the export grain New York and Philadelphia have been getting of the new crop.

THE WINNIPEG EXCHANGE.

The Winnipeg Grain Exchange has not been wiped out, as popularly believed. It is doing business just as usual, and some say a little more of it. The amendment to its charter has simply converted it from a corporation of limited membership to a town meeting, of which anyone may become a member who has the price of a seat, which may in no event exceed \$2,500. The difference is that the Exchange cannot pick and choose its membership and, therefore, the active members are reduced to the necessity of being more on their guard as to the men they do business with than heretofore. More than ever must business there be done on honor. The arrangement also opens the doors to all sorts of bucket-shoppers, and it is said that already the bucket-shop business has received an immense impetus, in spite of its legal disabilities in Canada.

The only significance the matter has on this side the line is in the fact that there may be some similar tendency in Minnesota. At least, it has revived one Elias Steenerson, a former member of the legislature and now a postmaster, we believe, whose claim to be the father of the idea embodied in the amendment to the Winnipeg charter is now being circulated in Minnesota. "That bill," Mr. Steenerson is quoted as saying, "is entirely along the lines I have suggested in reference to the Minneapolis Chamber of Commerce. A few grain speculators have no right to fix the price of the products of the farm, as they do at the present time, and this state must place adequate restriction and proper regulations upon the actions of boards of trade and chambers of commerce." He, therefore, predicts the same sort of emasculation of the Minneapolis exchange—in time.

ONE WAY OF DOING IT.

Greater intimacy with farmers' elevator promotion convinces one that the methods of the self-respecting, old-fashioned commission man are quite out of place in the race for the business of those concerns. Here is the recipe for the new method: Employ a spell-binder, one preferably who says he has "abandoned the law" for altruistic reasons, or one who has a record that some people may whisper is rather tough—a reputation for wickedness is a great hypnotizer of simple people; steep them in anti-trust literature and start them out to make speeches abusive of the local old-time, grain, coal and implement dealers—call them thieves and insist that all other commission houses in Chicago but "ours" are in collusion with greater thieves. At conventions work the trust racket strong. If other commission men are there, snooping around for acquaintances, get a resolution adopted that it is the "sense of the board" that farmers should patronize their "friends" (that's you, see?) and placard the

premises to that effect—it may help business even if it does annoy or startle your more respectable competitors. It is also a good thing to import from another state another spell-binder, a farmers' elevator man, who can tell the crowd that the whilom only "Farmer's Friend" in the Chicago market "would take the grain," of course, but—well, he "doesn't have the money to advance on shipments, so you can't ship to him, you know"—you must keep in good standing with So-and-So, as there is absolutely no other outlet for farmers' grain "should friend So-and-So go under." Work the secretaries of the convention. Send them to other state conventions to keep things stirred up. Of course, you needn't let it be known what compensation you may make to any of these outside people, not openly identified with your business. If they are able to build fine houses on their very modest salaries as local company managers, it's an evidence of thrift or an occasion for people to draw their own conclusions. Now, this isn't perhaps the method you Mr. Commission Man, would take to promote your business—you might not like the taste it would leave in your mouth; but it is a fact that some commission people have made money in this way.

INLAND WATERWAYS.

Although the President during the past thirty days has by special message called on Congress to do something in the way of developing the inland waterways of the nation, there is little likelihood that anything will be done, at least until "after election," that convenient excuse for delaying many things in Congress. The message called attention to the real kernel of the report of the Inland Waterways Commission, outlining the work that must be done before one dollar should be appropriated, to wit: Providing for "expert framing of a definite policy," and the passage of such legislation as will ensure "certainty of continuity and co-ordination of plan and work." If the work of developing the waterways is to be worth the doing, the plan must ensure unity of the system—uniform minimum depths and uniform size of locks, so that a boat built for canal service may be used in the service on any and all parts of the system—just as the standard gauge upon railroads makes it possible to send a car from anywhere to everywhere on the entire railway system of the nation. The making of this plan is the first step; and Congress, if it does its duty, should provide for this "expert framing of a definite" policy" without further procrastination.

THE ELEVATOR DECISION.

The Illinois Supreme Court decision to the effect that railroads in this state are not required to operate terminal elevators for the unloading and storing of grain carried by them was not unexpected, in the light of former decisions. The court has held consistently to the doctrine of thirty and more years ago, that railroads are chartered as carriers, not as warehousemen, and that they cannot legally perform the function of public warehousemen. That this doctrine has become obsolete through the lapse of time and the changed exigencies of the grain trade, brought about by what have been in the immediate past the improper relations of rail-

roads to the public elevator operators, seems to have made no impression on the court, if any latitude of judgment were allowable under our public warehouse laws. The decision simply means that the legal coat made to fit an infant must be somehow used to serve the purposes of the full-grown man.

Fortunately, the management of the Board of Trade of Chicago has made an adjustment of the Board's relations to the public warehousemen in Chicago which ensures to the public the right of unloading its grain into the public elevators; which the obsolete law deprives them of, and the business of this great market will not be destroyed nor indeed affected by this decision sustaining a legal and business anachronism.

THE INSPECTION BILLS.

The McCumber and other similar bills to establish a national system of grain inspection, after the hearing by the House committee, were like Mercutio after Tybalt's thrust—"peppered, I warrant, for this world." The bills were scotched, at least, and unless they can be resurrected by Senator Hansbrough in the Senate they are not likely to be heard of again on the floor of either house.

We are not so sure that we have heard the last of the matter, however. There is no immediate danger of a general overturning of the system of domestic inspection, but we are inclined to think that the day is not far distant when the Department of Agriculture will be given control, not merely supervision, of the certification of export grain. No one will undertake seriously to deny that the competition of the out-ports has distinctly lowered the quality of export grain and that the certification of quality is actually higher than the fact. It is begging the question to say that foreign buyers know this to be true. It is not honest to sell a man one thing and deliver something inferior, if the purchase is made on the basis of described grades and not standard samples.

It is easy to see what effect such an argument might have on Congress if the export proposition alone were presented to it—how irresistible it might be. When, therefore, the time shall come when the Agricultural Department shall have formulated its "standardizations of grain," at which its experts are now working, then it is probable the export inspection proposition will take form, and the present system, by which one port is permitted to ship wheat screenings and another good grain and have both certificated as of the same quality, will have to go.

“POINT WITH PRIDE.”

The Market Record of Minneapolis says, the grain exchanges "may well dwell with pride on their determined stand against the bucket-shop evil." Surely, virtue is its own reward, for it's dollars to the holes in the sinkers that not a member of Congress or a sour farmer in the Northwest ever thought of giving the Minneapolis and Chicago exchanges credit for their work; and they are the only exchanges that make quotations that are not willing enough to have the bucket-shops use them at will.

Editorial Mention.

Corn sorting at the cribs on the farm should be the rule now.

That 120 per cent bill of lading is still a threat to shippers who do not keep their eyes open and their wits about them.

This warm weather is telling where the good corn, dry-picked and crib-cured, is, and what percentage of Secretary Wilson's "farm reserves" is rotten stuff, not fit for anything but fertilizer—not even whisky.

One has only to read the average country newspaper with political organ attachments to realize how true is the statement that unadulterated ignorance is behind most of the agitation for anti-futures legislation.

The elevator "allowance" evil is again creating disturbances in more than one market; and that fact impresses one with the suspicion that when a railroad agent is real good he is good under compulsion, not otherwise.

The Commerce Commission rules that, "Upon discovery that shipments have through mistake been moved at an unlawful rate, the carrier should forthwith demand and the shipper forthwith pay the difference between such unlawful rate and the legal rate applicable thereto."

The Ohio Grain Dealers' Association's executive committee has named July 1 and 2 as the dates and Cedar Point as the place for holding the midsummer, or annual, meeting of that organization. Make two more red spots on your July calendar now, "lest you forget."

Ohio dealers and Toledo commission houses seem to have side-tracked a more than commonly aggravating bunch of vicious bills that invaded the legislature during the winter. Ohio is usually quite sane, but seems to have been afflicted with the prevailing hysteria at this session.

Secretary Wells of Iowa urges his members to teach the public to understand the "vast difference between bucket-shopping and legitimate speculation." Of course, that presupposes they will themselves all keep out of the local bucket-shops, which all of them do not—one may venture to say.

Representative Gronna of Minnesota at Washington contended that wheat should be graded as No. 1 if the wheat itself should be of that grade were the foul seeds not in it. But isn't it? If it is not, why not, then, take them out at the farm and let the grain grade No. 1, free of dockage?

The recession of business has undoubtedly thrown many freight cars on the sidetracks; but it appears that the surplus of cars to February 19 had decreased by 23,415 cars. However, this is entirely in coal and gondola cars, the surplus of box cars remaining practically unchanged since October 30. The only large de-

creases of surplus box cars were in the East and Canada; in the South and West the supply of empties increased between October 30 and February 19.

Kansas is steadily forcing its corn area to the west, and there are signs that the crop is going still further west this season—following in the wake of the wheat field, the center of which, fifteen to twenty years ago, was around Newton, while now Great Bend, a hundred miles further west, is on the eastern edge of the great field.

The defenses thrown around the Hepburn act ("rate law," so-called) by the decision of the United States Supreme Court in the Devereux-Great Northern rebate case does not give encouragement to law breakers. It has been said one can't be made sober by act of parliament, but some acts will make him hesitate a good, long time, and this seems to be one of them.

A conference was called to be held at Fort Worth on March 13 by the secretaries of the commercial organizations of Texas, which was to be known as the Sane Legislation Conference. As this paper went to press on that date, the reader must seek other sources of information as to the outcome of such an unusual affair, feeling that if Texas legislators hold out a welcoming hand to Sanity, there is hope for the "rest of us."

The schoolmaster and the habitual promoter of change for change's sake are again agitating the use of the central system—one of those pleasing theoretical pleasanties that, in business, among a people all unused to it and naturally suspicious of things unfamiliar, would shortly be found to be an intolerable nuisance, particularly in the grain trade—which nowhere in the world, outside of California, is in use by any people or any market.

When Massachusetts outlawed the bucket-shop the nuisance betook itself to Rhode Island, where for a time it has flourished, to the demoralization of a section of that public. Rhode Island legislatures are still "queer," but the present one has drawn the line at bucket-shops, and there is little doubt the Massachusetts law will be repeated in little Rhody, and then the thievish system will be driven from another profitable field. In time, it is to be hoped, it will become as defunct as the Louisiana lottery of evil fame, of which it is not as respectable nor as honest a rival.

The Kentucky Supreme Court has held constitutional the Act of 1906 declaring it lawful for any number of persons to combine and pool crops of grain, hay, tobacco, etc., to hold or to sell them or for the purpose of getting higher prices for them than they might get if the products were sold by the individual owners. The decision fits an urgent necessity in the tobacco trade at this moment; but it may well be wondered how far the decision might reach if followed to a logical limit. It would seem to be an unusual construction, in view of other state authorities, were it not that it protects one com-

bination (the growers) against another combination (the Tobacco Trust), and at least in so far will have public approval.

The fight on the Superior Board of Trade has been settled in such manner that it may obtain 15-minute quotations from Chicago. One can hardly reconcile himself to the belief that two exchanges—Duluth and Superior—are needed to make a market for the grain arriving at what is really but one terminal; but if the settlement will put a final crimp in the operations of the Wisconsin Stock and Grain Company and other Western bucket-shops no one ought to find much fault.

Some states require carriers to adjust and pay losses (where payment should be made) within a designated period after they are made or be subject to a heavy penalty. An inquiry of your lawyer, Mr. Reader, will inform you if you live in such a state. In other states carriers are notoriously and intentionally slow in making settlements. In such cases it may be necessary to begin suit, if delay is unreasonable and promises to be interminable. In such states the associations should be the prosecutors of claims at the general expense.

The wholesale feed dealers have at last effected an organization to be known as the Feed Dealers' National Association. It will lean toward the millers' organizations rather than toward those of the grain dealers for obvious reasons, and will probably affiliate with the Millers' National Federation. The organization, however, will be of great benefit to shippers of grain also, who have customers among the feed men, and the reduction of that trade to some sort of responsible order will be a good thing for everyone interested.

On Washington's birthday King & Co. asked: "Would George be a radical or a reactionary were he here?" It is safe to say he would be neither. Washington was great because he was level-headed; he never had the hysterics nor achieved a brain storm. He is said to have handled a hatchet in his youth, but he never carried a club in his maturer years nor drank buttermilk for his complexion. He was strictly sane at all times and under all circumstances—the sanest, surest man God ever put on American soil; and only Lincoln was like unto him.

Pacific Coast farmers are again discussing the problem of shipping their grain in bulk. As the price of sacks is now about 8 cents, the tax on the grower is a heavy one, in spite of the good prices grain has been bringing during the past few years. There seems no reason in the nature of things at the farms why the grain should not be handled there as in the East, but the exporters have thus far been able to prevent the change of system on the score that grain crossing the equator twice to get to Europe must go out in sacks; and the experience of the Pacific Coast exporters and vessel men seems to sustain the argument. However, should the disposition of certain big growers to market their wheat in bulk in spite of the exporters' objections be put to practical

test, there might come about at least a division of the bagging expense. But first of all the obstreperous farmers, who say they propose to force a reform, will have to start with the country elevator if they expect to economize in the cost of storing and handling their stuff; and there is no sign as yet of the country elevator in that region, except that a request has been made to builders of the C. M. & St. P. extension to erect them along that line of railway.

Corn lands are still good property and likely to continue to be, for in spite of hard times the consumption of maize attends close upon production. Moreover, the price is being made at home and not abroad—the foreigner must pay our price, and not say what we shall take. And all this a contemporary says is proved by the fact that the average corn crop of the last five years was 35 per cent larger than the previous five years' average, while the exports for the last five years are but little in excess of 50 per cent of the average of the preceding period.

President Roosevelt is now called a "conservative" because he has become converted to the repeal of the Sherman law, or at least to its modification, and is in favor of letting the exchanges go on. But he wants to stop "gambling," and so has turned over to Commissioner of Corporations H. K. Smith the delicate job of concocting a bill for a law to stop gambling "without injuring legitimate business." He is not content with smothering the bucket-shops. What a pity it is the President is so much like all reformers—never content with the practicable if something impracticable gets into his head.

The latest trade organization is the Colorado Wholesale Grain Dealers' Association, organized about a month ago, with Geo. Ady of Denver as president. Colorado dealers have attempted this thing before, with indifferent success; but as the need of order in the trade becomes more urgent almost daily, and as some sort of official or responsible inspection is coming to be imperative to the orderly conduct of the business, the chances of the new Association's "getting on in the world" seem better than hitherto. Mr. Ady, at least, will bring to the service of the Association wide experience as a dealer and exceptional executive ability.

It must not be overlooked that not all the grain exchanges are heartily opposed to the anti-option bills in Congress. Now, there is the Boston Chamber of Commerce, some of whose members very frankly confess themselves as indifferent to the matter, while others are quite in favor of restricting trading in futures and possibly of their prohibition. There is some feeling that perhaps "Chicago levies tribute," but we are perhaps better justified in saying that the secret of this attitude lies in the fact that the Chamber has not been itself successful in maintaining its own futures market. It was fifteen years or more ago, says the Transcript, that the Boston Chamber tried to work up a business in futures, but the effort failed. The public refused to come into the pit and the

members found that they were simply swapping jack-knives, as it were. It is said that at the end of one year of this experiment the Chamber found that it had paid the banks about \$60,000 for carrying a crop of oats, and that at the end of the season the price was 10 cents a bushel lower than when it opened. Results like these were not in line with the Boston idea of high finance, so the "pit" was "shoveled full of blasted hopes and abandoned." But who would have suspected Boston of going "sour" just on that account!

Losses by lightning have begun this year about a month earlier than usual, the first fire loss of that sort having occurred on March 1 as against March 30 in 1907. Several have already been reported, the largest being that at Whiting, Ia., involving the loss of two grain elevators and 20,000 bushels of grain. As has been frequently said in these columns, the Government's experts are agreed that the only protection against such loss and damage to be recommended is that obtained by the use of a system of lightning rods, properly put up, amply pointed and thoroughly insulated and grounded. This may cost some money to get it right, but then protection is practically certain.

A form of embezzlement, so infrequent in the Northwest that it may be cited as proving the rule that underpaid line elevator agents and farmers are all honest, is reported from North Dakota. The swindle was very simple, so long as a confederate was available, and consisted merely in issuing checks for larger loads of grain than were received, and dividing the profits. In the particular case under consideration the excess was 4,000 bushels, a shortage that could be concealed long enough to divide the money, but not when the "cut off" day should come around. In this case, the confederate of the agent was one of the richest farmers of his county.

A wise Eastern farmer writes the Country Gentleman a bit of advice to his "down East" neighbors. He finds, for instance, that the movement of Western grain, flour and feed is not so inevitably and overwhelmingly toward the East as formerly, and prices in the East are in consequence higher. Why is it? Well, the West is filling up—is filled up now pretty well, and must feed herself and the Northwest. Another phenomenon, he notices, to wit, that the railroads are at last beginning to give some attention to the "short haul"—in other words, to their local business; and as sudden and arbitrary rate-cutting on the "through" has come to be both risky and unprofitable, the through rate is not likely to be as low as it used to be, relatively or absolutely. All this means that the Eastern farmer should pay more attention to growing his own foodstuffs again, as he did 50, 60 or more years ago, before the Far West began to feed him more cheaply than he could feed himself. The competition now among producers is, therefore, on a more equal basis. To raise his own cereals, the Eastern farmer would have to

become more scientific; but then all farmers are bound to be that in the near future, or all Americans will go more or less hungrier than they do now.

Although the Royal Grain Commission reported adversely to government ownership of elevators in Canada, it is more than likely the Manitoba Grain Growers' Association, probably the most exacting business organization on the continent, will force the issue into politics, having already pronounced in favor of the provincial governments owning and operating the elevators, on the principle that public utilities, like railroads, "should serve the public;" but as the chartered carrier corporations are despotic and do not properly serve the public, therefore the Government should take their places—and be more despotic and dilatory?

One effect may obtain as the result of the "national inspection" discussion: greater care in the management of exchange and state inspection departments, because, as the Washington correspondent of the Minneapolis Journal has suggested, "In the opinion of a number of members of Congress who have been brought in close touch with proposed legislation the very existence of state railroad commissions and other state bureaus organized for the control of this matter is threatened, and everything depends upon the selection by the people of men of the very highest grade for membership on these commissions in order that Congress may have no excuse for stepping in and assuming their duties."

It sometimes occurs to one who notes the spread, in the Canadian Northwest, between track prices and street prices for grain, that therein lies the cause of a good deal of the friction that undoubtedly exists between the farmers and the regular grain buyers. When there are cars at hand for shippers and the farmer can get his share, the spread is very narrow—just enough to pay cost of running through the house; but when cars are scarce it is often as great as 6 to 7 cents. One wonders how long an elevator man in the corn belt would continue in business if he carried on his business in the same way—milked his customers for the privilege of selling to him when they themselves could not unload into cars directly—milked them when they must sell or haul their grain back home and wait until they could get cars, or else make them pay the storage from the time they sold their grain until "the delivery month in which the grain may reasonably be expected to arrive at the delivery point," and also "such expenses and profits as are agreed upon from time to time by the members of the North West Grain Dealers' Association." That sort of thing may go in a new country where the line elevator interests control almost absolutely, but we are quite sure the methods of Winnipeg grain men if put to use in the corn belt would make Rome howl in just about two days, and the howl would be heard, you bet. If the Winnipeg buyers want to restore the *entente cordiale* they ought to be willing to divide the risk in marketing the grain, just as American corn buyers do, and not expect the farmer to carry it all.

TRADE NOTES

The new factory of the Hess Warming and Ventilating Co., on Western Avenue, near Twelfth Street, Chicago, is nearing completion and will be ready for occupancy in April.

An office and salesroom has been established in the Old Colony Building at Minneapolis by the Avery Scale Co. of North Milwaukee, Wis., under the management of H. G. Bushnell.

L. Buege, elevator builder of Minneapolis, Minn., has removed his offices from the Boston Block to larger quarters at 322 Fourth Avenue, South. The new office is directly opposite the New Chamber of Commerce Building, and besides being convenient to the Board of Trade will be easily found by out-of-town grain men.

The Kentucky Public Elevator Co. of Louisville, Ky., is installing a No. 8 Hess Grain Drier and Cooler having a capacity of 30,000 bushels daily. With the exception of the Hess Driers at New Orleans, this will be the largest drier south of the Ohio River. The Witherspoon-Englar Co. has the contract and will complete it by April 1.

The February issue of "Conveying and Transmission," published by Stephens-Adamson Manufacturing Co., Aurora, Ill., is devoted to "S-A" equipment for conveying heavy material, such as crushed stone and ores. There is an increasing demand for conveyors of this character and the Stephens-Adamson Co. has been prompt in meeting it. The house is also prepared to figure on grain conveying machinery of all kinds and has facilities for handling orders promptly.

The Gutta Percha and Rubber Manufacturing Co. of 222-226 Randolph Street, Chicago, in presenting its name to the grain public through our advertising pages this month desires to call attention to its specially constructed belting for grain elevators. This belting is largely used for grain elevator work, and in wear and service it has proved its excellence in the many years it has been sold. The Gutta Percha company carries a large stock in all widths and sizes and can supply orders promptly.

The Hess Warming and Ventilating Co., Chicago, has issued a booklet on the Hess United States Moisture Tester. The booklet illustrates and describes the tester and gives complete directions for its use. The necessity of testing the moisture of corn and other grain is explained and much information of a valuable nature is given. Every dealer who is interested in the proper grading and handling of grain should have a copy of this booklet and may obtain one free of charge by writing the company.

Times and conditions are constantly changing and new methods and systems are daily appearing to meet new requirements. One of the new trade requirements is now met by the large orders for Hess-Dried corn, which are being placed at the large terminals that have the facilities for supplying this article. All the large handlers report big orders on their books for this commodity and one big Chicago shipper informs us that his business in this line has been extraordinarily large since the first of the year.

The Preston-Polk invention, owned by the Mc-Clanahan Concrete Co., Ft. Branch, Ind., promises to be a departure in the manner of constructing concrete buildings. Its use is especially adapted for the construction of grain storage. The means by which the steel reinforcing is held in place guarantees a uniformity of strength, and the manner in which the forms are collapsed and assembled insures a perfect wall, as the weight is carried by a center support instead of the wall, as in most other systems. The center sup-

port is guyed to a perpendicular position which guarantees a perpendicular wall. Any number of bins can be brought up with the outside walls. The many advantageous features of this means of construction will necessarily make it popular.

The B. S. Constant Co., Bloomington, Ill., has issued Catalogue No. 2, which shows that the business of the company has experienced a healthy growth from the fact that the list of well-known specialties carried has been considerably augmented. The regular lines which have been the foundation of the company's business are still in evidence, but new ones have been added, and the company is now in a better position than ever to supply the needs of elevator owners for modern equipment. One feature of the catalogue that is worthy of special mention is a series of illustrations showing parts of the company's machines with numbers attached, enabling customers to order repairs by number and insuring delivery of the right part.

Most of our readers are familiar with Jeffrey conveying machinery for handling grain and its products, but some of them may not be aware of the numerous applications of belt conveying that have been made by the company. A booklet recently issued shows some of the many installations of the Jeffrey "Century" Rubber Belt Conveyor in plants of widely different character. Conveyors for handling coal, ore, sand, gravel and the like are illustrated in almost endless variety, while systems for handling barrels, boxes, sacks, bales of cloth, bottles, mail bags, etc., are also shown. The Jeffrey Manufacturing Co. are ready at all times to figure on large or small contracts for machinery of this character and are prepared to make the installation conform to existing conditions.

MORE HILL TALK.

Pres. Louis W. Hill, who has succeeded his father, "Jim" Hill, as head of the G. N., has evidently taken a leaf out of his father's working program, and has been talking—Tacoma papers say, "nonsense." He said in an interview at Seattle in February that, "The wheat crop of Washington last year was about 40,000,000 bushels, and there were only three or four firms in the market to buy it. This is a condition that cannot last. The railroads can handle all the wheat raised quickly and easily, but the facilities for taking care of it at the terminals are inadequate. Do you suppose that three or four firms would be permitted to buy 40,000,000 bushels of wheat in the East if that constituted the entire crop? Not a bit of it. There would be forty, at least. I shall endeavor to get somebody with money to go into the wheat buying business. It will not be the Great Northern or the Northern Pacific, as we shall have all we can do to carry the crop when it is handled properly. I have not thought of a man yet, but anybody with money sufficient will do."

After the grain exporters (the buyers) had finished "criticising" Mr. Hill, railroad Commissioner Lawrence replied that, "At present there is little or no competition in grain buying, and the margins taken by the exporters are vastly greater than in the middle states. Practically all of the grain bought in Washington for export was obtained on a 10-cent margin or more. In North Dakota and Minnesota 2 cents is considered sufficient.

"I look to see a number of bulk grain warehouses built along the line of the Great Northern this year, and some on the Northern Pacific. With real competition in the field and with grain handled in bulk the farmers would be relieved of serious burdens. I do not believe that the bulk grain plan will be adopted all at once throughout the state. That would mean the outlay of millions for new warehouses. However, we shall ultimately come to that system."

A fortnight later it was said at Lunston, Idaho,

that, "Competitive grain buying, the hope of the farmers, is to become a reality next year, so far as the Clearwater and Prairie sections are concerned, unless a decided setback to plans now under way occurs. The fact that Kerr-Gifford have sent a representative into the shipping centers is taken here as an indication that they desire to enter the field. The farmers have begun to organize independent companies, and they have arranged to build a warehouse at Greer, which is to be the entering wedge in the gnarly knot of trust control. Kerr-Gifford own a warehouse at Greer, but they have leased it for several years to the Kettenbach Grain Company, but it is said the latter company does not intend to use this warehouse next year."

JOINT WHEAT RATE.

The order of the Washington Railroad Commission directing the railroads of that state to make such joint rates on grain and other farm products as would enable farmers of eastern Washington to sell their products at their option at either port on Puget Sound or at Portland has been sustained at Olympia by a ruling of Judge Linn of the Supreme Court, which will enable the commission to get the subject-matter out of the U. S. Court into the Supreme Court of the state.

The right of the Commission to regulate and fix rates was sustained by Judge Linn in affirming the order of the Commission for the joint wheat rate. Although this point was not presented by the contestants on the grounds of the unconstitutionality of the rate-making authority, and was not specifically referred to in the opinion, nevertheless it came under the consideration of the court in rendering its decision sustaining the Commission's joint wheat order. This order was being resisted by the Great Northern and Northern Pacific.

Under the conditions complained of, and which led to the making of the Commission's order, all wheat marketed in non-competitive territory in eastern Washington had to be carried to Portland or to Puget Sound, even though the markets might vary several cents, which variation the shipper could not avail himself of or avoid as the case might be. If the joint rate is finally declared a legal order by the Commission the O. R. & N. Company would be required to carry grain when so directed by the shipper to a connecting point with the Northern Pacific and to pass it to that road for delivery on Puget Sound. Conversely, if a grain owner at a non-competitive Northern Pacific point wanted his wheat sold in the Portland market the Northern Pacific in like manner would be required to make delivery to the O. R. & N. at the most available connecting point.

WILL THIS COME TRUE?



Bulls say it's going to be a case of "Old Mother Hubbard went to the cupboard," etc.—not just now, but later on. Of course Bears laugh at such a statement.—Zahm's Red Letter.

Owing to the spring freshets, shippers to Pittsburgh over the B. & O. R. R. are advised to keep close watch of the high-water predictions of the Weather Bureau.

FACTS AND FIGURES

The seed oats problem is apparently acute in Iowa, where last year's grain weighed only from 15 to 25 pounds to a bushel.

Tacoma, September 1 to February 1, received 11,114,355 bushels of grain, beating all former records for the same period.

Fire believed to have been started by a tramp destroyed a grain elevator at Barry, Ill., belonging to the Barry Milling Co. The loss is estimated at \$10,000.

Indiana buyers have all winter been taking in corn only after tests for moisture, finding a very large proportion of it moldy on the cob as well as damp.

New Orleans exported in February 152,872:40 bushels of wheat and 1,337,896:24 bushels of corn. The greater part of the grain went to the continent of Europe.

A seed corn special was run over the lines of the C. & E. I. R. R. in Indiana on March 12, 13 and 14, the lecturers being from the experiment station at Lafayette.

East Shore grain shippers asked the Baltimore Chamber of Commerce to order elevator men to keep their respective shipments separate, claiming stocks are not fairly graded when all are mixed indiscriminately.

The Albert Dickinson Co., Chicago, has removed its Minneapolis office from the ninth floor to the ground floor of the new Chamber of Commerce. The change gives the firm double its former space.

The German ship Nordsee cleared from Portland, Ore., on February 17 for Callao, Peru, with 82,345 bushels of wheat, valued at \$83,101, on board. The Nordsee is the first ship to clear from Portland for the west coast of South America this season. As a general thing, about one cargo clears for a South American port each year. A number of steamers have taken part cargoes south during the present cereal year, but the grain carried by the Nordsee is the first to go direct to Callao.

The unusually warm and humid weather of the winter kept the arbitration committee of the Louisville Grain Dealers' Association busy handing down decisions on the appeals taken from the inspectors of the incoming cars of grain. The committee, of which Alfred Brandeis is chairman, was called upon to meet several times a week in the Board of Trade building to consider appeals from the judgment of the inspectors. Much of the grain was on its way East, the cars stopping there for inspection and grading. The grains most affected were wheat and corn.

VISIBLE SUPPLY OF GRAIN.

The following table shows the visible supply of grain Saturday, March 7, 1908, as compiled by George F. Stone, secretary of the Chicago Board of Trade:

In Store at	Wheat, bu.	Corn, bu.	Oats, bu.	Rye, bu.	Barley, bu.
Baltimore.....	374,000	2,539,000	123,000	133,000	.....
Boston.....	1,022,000	245,000	1,000	.....	.....
Buffalo.....	1,473,000	.....	191,000	71,000	521,000
do. afloat.....	1,796,000	.....	455,000	.....	341,000
Chicago.....	5,700,000	1,241,000	2,771,000	186,000	37,000
do. afloat.....	.....	.....	.....	.....	.....
Detroit.....	299,000	154,000	55,000	9,000	9,000
do. afloat.....	.....	.....	.....	.....	.....
Duluth.....	8,431,000	.....	1,021,000	16,000	479,000
do. afloat.....	.....	.....	.....	.....	.....
Ft. William.....	3,670,000	.....	.....	.....	.....
do. afloat.....	.....	.....	.....	.....	.....
Galveston.....	375,000	157,000	.....	.....	.....
do. afloat.....	.....	.....	.....	.....	.....
Indianapolis.....	216,000	258,000	53,000	.....	.....
Kansas City.....	1,888,000	556,000	59,000	.....	.....
Milwaukee.....	346,000	241,000	200,000	21,000	340,000
do. afloat.....	.....	.....	.....	.....	.....
Minneapolis.....	7,173,000	221,000	1,912,000	74,000	2,275,000
Montreal.....	84,000	69,000	114,000	.....	118,000
New Orleans.....	600,000	125,000	.....	.....	.....
do. afloat.....	.....	.....	.....	.....	.....
New York.....	1,693,000	961,000	336,000	170,000	186,000
do. afloat.....	.....	.....	.....	.....	.....
Pearl.....	12,000	160,000	795,000	2,000	.....
Philadelphia.....	618,000	200,000	53,000	62,000	.....
Port Arthur.....	3,956,000	.....	.....	.....	.....
do. afloat.....	649,000	.....	.....	.....	.....
St. Louis.....	1,062,000	188,000	121,000	1,000	36,000
do. afloat.....	.....	.....	.....	.....	.....
Toledo.....	525,000	294,000	206,000	6,000	.....
Toronto.....	.....	.....	4,000	.....	.....
On Canal.....	.....	.....	.....	.....	.....
On Lakes.....	.....	.....	.....	.....	.....
On Miss. River.....	.....	.....	.....	.....	.....
Grand total.....	41,362,000	8,085,000	8,634,000	751,000	4,348,000
Corresponding date 1907.....	45,750,000	12,359,000	10,227,000	1,536,000	2,251,000

RECEIPTS AND SHIPMENTS.

Following the receipts and shipments of grain, etc., at leading receiving and shipping points in the United States for the month of February, 1908:

BALTIMORE—Reported by H. A. Wrotb, secretary of the Chamber of Commerce.

Articles.	Receipts.		Shipments.	
	1908.	1907.	1908.	1907.
Wheat, bushels.....	448,100	324,161	160,631	236,000
Corn, bushels.....	4,979,411	4,312,418	3,541,017	3,273,623
Oats, bushels.....	165,583	297,628	600	942
Barley, bushels.....	.....	.....	.....	1,167
Malt, lbs.....	178,711	18,853	154,285	.....
Rye, bushels.....	.....	11	.....	3,791
Timothy Seed, lbs.....	671	1,478	.....	.....
Hay, tons.....	5,323	7,476	1,725	2,127
Straw, tons.....	.....	.....	.....	.....
Flour, bbls.....	181,073	228,267	180,955	111,527
Mill feed, tons.....	.....	.....	.....	.....

BOSTON—Reported by Daniel D. Morss, secretary of the Chamber of Commerce.

Articles.	Receipts.		Shipments.	
	1908.	1907.	1908.	1907.
Wheat, bushels.....	119,586	131,000	82,573	42,991
Corn, bushels.....	557,888	152,951	1,531,406	973,295
Oats, bushels.....	399,871	171,657	282,095	351,496
Barley, bushels.....	181,037	236,085	.....	.....
Rye, bushels.....	36,413	2,370	16,000	.....
Flax Seed, bushels.....	6,891	910	24,255	.....
Peas, bushels.....	1,365	635	.....	.....
Mill Feed, tons.....	8,361	8,525	332	9,910
Cornmeal, bbls.....	1,558	990	.....	39
Oatmeal, bbls.....	650	2,550	205	1,105
Oatmeal, sacks.....	7,924	7,070	7,525	8,897
Hay, tons.....	27,527	8,217	6,650	4,110
Flour, bbls.....	8,210	7,620	181	217

CHICAGO—Reported by Geo. F. Stone, secretary of the Board of Trade.

Articles.	Receipts.		Shipments.	
	1908.	1907.	1908.	1907.
Wheat, bushels.....	660,821	573,000	1,867,856	651,914
Corn, bushels.....	7,226,313	13,158,362	4,922,919	5,678,355
Oats, bushels.....	6,201,316	5,481,475	4,381,782	4,461,675
Barley, bushels.....	1,534,800	1,465,637	795,401	532,038
Rye, bushels.....	124,500	205,000	203,347	129,582
Timothy Seed, lbs.....	3,471,770	2,511,337	2,881,576	2,233,683
Clover Seed, lbs.....	751,141	818,108	601,430	331,841
Other Grass Seed, lbs.....	740,830	1,722,480	4,972,837	4,424,370
Flax Seed, bushels.....	133,922	38,933	11,259	11,061
Broom Corn, lbs.....	1,305,548	1,201,627	515,944	661,492
Hay, tons.....	22,251	27,513	3,758	6,949
Flour, bbls.....	840,356	755,503	630,573	558,199

CINCINNATI—Reported by C. B. Murray, superintendent of the Chamber of Commerce.

Articles.	Receipts.		Shipments.	
	1908.	1907.	1908.	1907.
Wheat, bushels.....	139,484	170,500	149,558	130,548
Corn, bushels.....	796,328	791,996	574,260	458,385
Oats, bushels.....	553,106	351,231	340,862	292,590
Barley, bushels.....	64			

FIELD SEED SECTION

SEED OATS FOR OKLAHOMA.

A press bulletin issued by the Agricultural Experiment Station at Stillwater, Okla., says that last season the oat crop was almost a total failure in Oklahoma. The spring grain aphid found a favorable place, not only on the fall sown grain, but it also appeared to relish the young and tender oat plants. In many wheat fields the supply of green material furnished by the natural host was exhausted, or the plants had become coarse and unsuitable for this insect enemy by the time the spring crops had sprouted; hence, as soon as the spring crops were well above ground innumerable plant lice migrated to the fields of spring grain. Plant lice multiply rapidly, thus only a few days elapsed until these fields were bare. Other crops like corn and cotton were substituted for oats, with the result that the acreage in the case of the latter cereal was reduced to a very low scale.

Farmers generally keep a supply of old oats from one season to the next, but many of these oats have been used for feeding purposes; consequently, new seed must come from outside sources. The opinion that northern seed will not give good results in Oklahoma evidently prevails in some sections of the state, inasmuch as several inquiries with special reference to this item have been addressed to the experiment station. It has been stated by some that southern seed cannot be purchased, and as practically all of the old seed has been consumed, the only alternative is found in procuring northern grown samples.

In the trials at the Stillwater station northern grown oats have been planted side by side with Oklahoma grown seed. It was not the purpose in conducting these experiments to determine the superiority of home-grown oats over imported strains, but the varieties which were secured had given exceptionally good results in the West, and it was thought that they might be well adapted to soil and climatic conditions in the new state. The comparative value of northern and eastern grown seed, rating with Oklahoma grain, can be secured only through repeated field tests. If a given variety shows special adaptive features to conditions which are similar in many respects to our field in the Southwest, it would certainly be worth more than passing attention, and one would be justified in giving this well recommended strain a trial. On the other hand, the introduction of new strains with ornamental names and great productive powers from localities where the oat crop is grown under ideal surroundings should be questioned, because these favorable conditions do not prevail in those states which extend into the semi-arid sections of the West. All growers are interested in those varieties that give satisfactory yields under average seasonal conditions. Several varieties have made good records on the station farm in the past; hence, some assurance of success in the future is provided if the same strains are adopted.

Four varieties were used in the 1905 trials, and results were obtained from small, medium sized and large plats. The Texas Red variety has been grown on the station farm for several years in succession, and it has given very satisfactory results during this period. In the years 1903 and 1904 the Texas Red variety made low records in this locality; but it should be noted that these seasons were extremely unfavorable for the oat crop, hence large yields could not be expected. Kherson oats were introduced for the first time in 1905. This crop had been tested thoroughly at the Kansas and Nebraska stations, and it came to Oklahoma well reported. The supply of seed was obtained from the Nebraska station. Lincoln and Culberson oats have been grown at

this station in previous trials; and the supply of seed was taken from previous plantings. In 1906 one new variety was brought from Iowa and was tested along with the above strains. The Kherson seed which was used the second season was obtained from the station field plats in 1905; hence only one imported sample was used each season. The following table gives the yields for the respective years:

Variety.	1905.	1906.	Avg.
Culberson	33.7	33.38	33.54
Lincoln	44.9	32.44	38.67
Texas Red	38.4	46.31	42.35
Kherson	46.8	35.94	41.37
Iowa seed		23.19	23.19

In 1905 the Kherson variety stood at the head of the list with an average yield of 46.8 bushels per acre. It should be mentioned here that the Texas Red variety was placed at a disadvantage in the season of 1905 because the seed produced the previous season was poor in quality and proved to be weak in vitality. Observations during the growing season demonstrated this fact. The stand was thin and the plants did not show quite as much vigor as the plants on adjacent plots. The Lincoln variety came second in point of yield for the first season, while the Texas Red variety occupied third place. This order was reversed in 1906. The Texas Red gave the highest average record for the two-year period in spite of unfavorable circumstances associated with the germination of the seed in 1905. The Kherson variety gave the second best yield in 1906, and it made the second highest average for a two-year period. The imported Iowa seed oats gave the lowest yield per acre. The quality of the seed used on this area was rated as standard.

If old seeds are to be used this spring, a thorough test of the vitality of the material ought to be made, provided there is still sufficient time to do the work. It will require from six to eight days to make a complete germination test. Several samples have been examined in the seed laboratory this spring, and some very striking results were secured. One lot which had been apparently heated and was musty gave a germination test of 11 per cent; a second lot, which would be classed as an inferior grade, germinated 27 per cent. In order to secure a full stand with seeds of this description, it would be necessary to use about ten times the usual

concerning the vitality of a sample may be removed by a careful test.

A SUCCESSFUL INDIANA CORN GROWER.

That Indiana is taking a leading position among the corn producing states is due to the fact that she numbers among her citizens men who are true corn enthusiasts, men who preach the gospel of good corn in season and out. One of these is Harvey Gray, proprietor of Gray Gables Seed Farm, who is not only a successful corn grower, but also is doing much

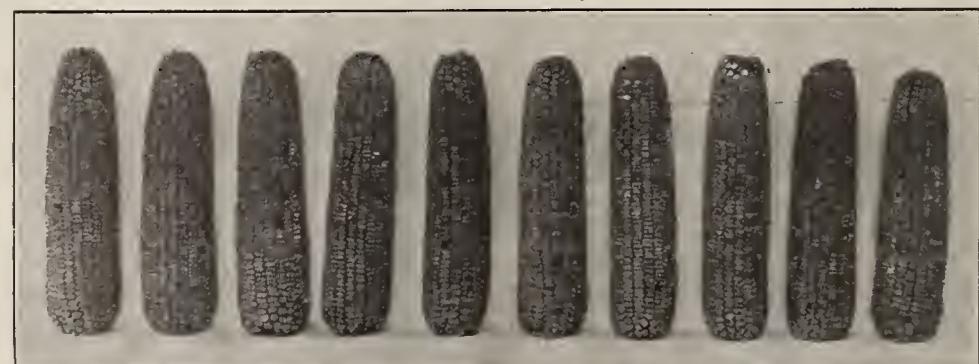


HARVEY GRAY.

to improve the quality of the crop grown in the state.

It was Mr. Gray who presented to the Indiana Corn Growers' Association the beautiful silver trophy illustrated herewith, to be awarded annually for the best ten ears of yellow corn grown in Indiana and exhibited at the state corn show held at Lafayette, January 13 to 18. The trophy, valued at \$100, was won by Mr. Gray, but is not a perpetual gift or possession and next year passes into the hands of the man having the best ten ears of yellow corn.

Mr. Gray has been acting in the capacity of judge at numerous corn shows held throughout the state within the past two years and has himself been a very successful exhibitor. He won



TEN EARS OF YELLOW CORN WHICH WON THE GRAY TROPHY.

amount per acre in the one case and about four times the regular amount in the other; however, the grower could scarcely afford to take chances with seed as poor in vitality as the above. Where the seed has been subjected to heating through the presence of an undue amount of moisture or through the storage of moist grain in poorly ventilated bins the vitality is liable to be impaired. Well-cured oats should retain their vitality for a few years. Two samples which were grown in this vicinity two years ago gave a test of 95 and 96 per cent, respectively. This report stands in marked contrast with the results obtained where inferior, poorly cured samples were inspected. Any doubt

the two first prizes and sweepstakes in Section 2, State Corn Show, 1906, and four first prizes in Section 2, sweepstakes in Section 2 and sweepstakes in class in the following year, 1907, and again this year, 1908, he won two first prizes and sweepstakes in section and class. He also won first prize in the central section of the grain dealers' show, held in Indianapolis on January 8 of this year.

In addition to the above he has won for three years successively, 1906, 1907 and 1908, the first prize in the Logansport Journal corn contest, and in 1907 the first and second prizes in the Kokomo Daily News contest. He was also inside the money on all exhibits made at the Na-

tional Corn Exhibition held at Chicago, October 5 to 19, 1908. The accompanying cut shows the ten ears of corn that captured the Gray Trophy.

Mr. Gray is a personal friend to L. B. Clore of Franklin, Ind., champion corn grower of the world, who grew a \$250 ear. He is the owner of Gray Gables, near Galveston, a seed farm of several hundred acres, and ships hundreds of bushels of corn out of the state every season. He has, in consequence, been named the "Corn King of Cass County."

Mr. Gray raises seed corn with the same care that he would attend a valuable race horse. Almost hourly during the growing season he visits the fields. His corn is laid off in plots and receives a remarkable amount of attention. He applies scientific principles to its growth and, in short, makes a science of raising corn. He looks after it, matures it and has a quality of seed corn not surpassed in Indiana.

A SOURCE OF IMPURE SEEDS.

When the Iowa seed law was framed it was supposed by the lawmakers that the large seed dealers were to some extent responsible for the dissemination of weed seeds, but now that the matter has been gone into carefully and impartially it has been proved that the farmer and local dealer, who have sold clover and grass seed as it came from the thrasher, without cleaning, have been largely to blame for the spread of noxious weed seeds. This is owing to their not having facilities for properly cleaning the seed before offering it for sale.

As an instance of this the case of one farmer near Winterset, Iowa, is cited. He had grown considerable clover seed and was retailing it to his neighbors at \$10 per bushel at a time when high-grade seed was selling at \$11.75. A sample of the seed was secured and analyzed and in one ounce were found 1,967 plaintain seeds, 480 sour dock, 67 smartweed, 120 witch grass, 226 foxtail, 43 pigweed and 907 other unidentified weed seeds, making a total of 2,810 weed seeds in an ounce, or 60,960 weed seeds to the pound. By sowing 15 pounds per acre of such seed the farmer would be adding 915,300 weed seeds per acre to his land.

In figuring the actual per cent the following results were obtained:

Per cent

Weed seeds	19
Dirt, sand and trash.....	12
Dead and blighted clover seed.....	15
Good clover	54

So not only would the farmer be sowing an immense number of weed seeds, but he would also be paying for 46 per cent of stuff which is of absolutely no value to him. Figuring this out at the price the farmer charged, it is found that the purchaser was paying at the rate of \$18.52 per bushel for clover seed, when the very highest grade of re-cleaned, inspected and tested seed could have been purchased at \$11.75 per bushel.

DEPEND ON THE SEED CORN BREEDERS

During the past few years the farmers in the corn growing sections of the country have had the gospel of good seed preached to them continuously. Experiment station authorities, the agricultural press and independent lecturers all have worked energetically to awaken the farmer to the importance of good seed corn. The railroads have co-operated and the seed corn special has been an important factor in the propaganda.

All this agitation has, no doubt, resulted in convincing a great many farmers that the way to increase the yield of corn is to select the seed carefully, but whether it has induced many of them to make the selections from their own crops is a question. It has been shown conclusively that almost every corn grower could, with a comparatively small expenditure of time and labor, select good seed corn from his crop, but the average farmer will not do it. Some few will make a half-hearted attempt at doing so, but

the majority will rely on the seed corn breeder and buy their seed in preference to selecting it themselves.

For years millers and experiment station men have urged the necessity of carefully selecting seed wheat, but the results have been disappointing. The farmer has gone on sowing poor seed, and as his yields become poorer and poorer each year declares that his wheat has "run out." He then imports some seed wheat from a distance, and as this usually is plumb, clean seed he is convinced that it pays to change seed every so often. If he had used his fanning mill and selected the best seed from his own crop he would have found wheat does not "run out" ex-

cured by the Seed Laboratory in the open market in the spring of 1906, 116 samples contained dodder. Again, of 352 samples of alfalfa seed 160 contained dodder.

The dangerous character of the dodder plants as pests of flax and leguminous crops, together with their wide distribution throughout the regions which have long grown these crops, especially in Europe, has caused them to be looked upon with dread by farmers. The result is that under the existing seed-control regulations generally in vogue in Europe, dodder seed as an impurity of commercial seeds is singled out for special consideration, and seed containing it is usually rejected. Reports upon seed tests at the European seed-control stations usually make particular reference to the presence or absence of dodder. As a result of its unpopularity seed containing it is practically unsalable in the domestic trade of most of the European countries.

ADULTERATION AND MISBRANDING OF ALFALFA, RED CLOVER AND GRASS SEEDS.

Complying with an act of Congress instructing the Secretary of Agriculture "to obtain in open market samples of seeds of grass, clover or alfalfa, test the same, and if any such seeds are found to be adulterated or misbranded, or any seeds of Canada bluegrass (*Poa compressa*) are obtained under any other name than Canada bluegrass or *Poa compressa*, to publish the results of the tests, together with the names of the persons by whom the seeds were offered for sale," the Department of Agriculture secured and analyzed seed of red clover, alfalfa, meadow fescue, *Bromus inermis* and Kentucky bluegrass.

Of the 1,217 samples of red clover seed secured, 405, or one-third, contained seed of dodder, 424 contained traces of yellow trefoil seed and 135 bore evidence of having originated in Chile.

Of the 399 samples of alfalfa seed secured, 191, or about one-half, contained seed of dodder, 135 contained a trace of yellow trefoil seed, 120 contained a trace of sweet clover seed and 16 contained a trace of burr clover seed.

Sixty-four samples of meadow fescue seed were obtained, and of these, 20 contained chess in amounts varying from a trace to more than 19 per cent, four contained seed of rye grass, four were misbranded, being Canada bluegrass, one was misbranded, being orchard grass, and another was misbranded, being a mixture of orchard grass and fescue.

Of the 55 samples of *Bromus inermis* seed obtained, 15 contained seed of cheat, or chess, 28 contained from 2 to 3 per cent of seed of wheat grasses, several contained seed of meadow fescue, and one contained more than 24 per cent of meadow fescue and rye grass seed together.

Of the 429 samples of Kentucky bluegrass only eight were found to be free from any trace of Canada bluegrass. In most of these samples the trace of Canada bluegrass found was immature seed, showing that it was harvested with the Kentucky bluegrass seed. The seeds of the two plants not ripening at the same time, it is improbable that mature seed of Canada bluegrass would be harvested with Kentucky bluegrass seed. In 110 samples, however, Canada bluegrass was found in quantities exceeding 5 per cent, 32 of these being Canada bluegrass seed misbranded as Kentucky bluegrass seed.

SEED CORN BRINGS FANCY PRICES.

Advices from Marshalltown state that the corn contest held under the auspices of the Iowa Short Course Association was brought to a successful conclusion by the sale of the prize-winning ears of corn. Three hundred and four ears, about 13 bushels, were sold to the highest bidders for \$515.50, an average of \$39.50 a bushel. The best ear was sold for \$11.50, and 80 ears entered by the same exhibitor brought \$204.50. The second best ear was sold for \$10.



THE GRAY TROPHY.

cept when poor, lightweight seed is sown year after year.

Fortunately for the corn grower the breeding of corn has become a highly specialized business and it is now possible to secure pure-bred seed corn in any desired quantity. The farmer who will not take the trouble to select his own seed can, by paying a reasonable advance, secure well-bred and carefully selected and tested seed. This the majority of them will continue to do and the breeding of seed corn will, without doubt, become more and more a specialty.

DODDER IN FIELD SEEDS.

In a bulletin issued by the Department of Agriculture, F. H. Hillman, Assistant Botanist, Seed Laboratory, Bureau of Plant Industry, says that the seed of dodder becomes an important impurity of commercial seeds both on account of the injurious nature of the plants and the fact that they occur in nearly all the regions where clover, alfalfa and flax seeds are produced.

The size and weight of the dodder seeds and the period of their maturity agree so closely with those of red clover and alfalfa seeds that their presence in the seed crop is practically sure to follow the occurrence of maturing dodder plants in fields devoted to these crops. The same is true of flax seed which has not been especially well cleaned. The extent to which dodder may infest clover and alfalfa seed is indicated by the fact that of 521 samples of red clover seed se-

All the corn that took first, second and third prizes was sold at auction. Much of it brought from 50 cents to \$3 an ear in lots ranging from 10 to 50 ears. The total proceeds from the sale were much larger than had been expected, and about \$150 was left in the treasury of the Association after all expenses were paid.

KENTUCKY SEED LAW AMENDED.

The upper house of the Kentucky legislature has passed the Newman bill to prevent the sale of adulterated or misbranded field seeds and the measure is now being considered by the House of Representatives. The bill provides that the Kentucky Experiment Station, at Lexington, shall charge a fee of \$5 for making an examination of seeds and also says that the director and agents of the station shall have the right to inspect at any time the stock of seeds which may be carried by any dealer. Dealers are allowed to sell impure seed if branded "not guaranteed."

INDIANA SEED CORN NEEDS TESTING.

During the last two months, members of the Purdue University experiment station have made a study of the seed corn of the state and find the vitality of much of it to be in a serious condition. The unusual cold, wet season of 1907 did not allow the corn to mature and dry out before the time of frosts. In the early part of October much of the corn of the state was still in a moist and immature condition and the series of hard freezes which came at that time materially injured the vitality. The result of these conditions is that those corn growers who depended on late selected seed are now finding, on close examination, many ears of questionable vitality. For these reasons all seed corn should be specially selected and thoroughly tested. A test of each individual ear should be made, and all weak or dead ears should be discarded.

Prof. G. I. Christie, Superintendent of Agricultural Extension, says: "This test can be made in several ways. The following is suggested as a reliable and satisfactory one: Take a box made of inch lumber and of any convenient size, say about 2 by 3 feet and 3 inches deep. Through the ends and sides, about $2\frac{1}{2}$ inches from the bottom, bore small holes 2 inches apart. Through these holes string a light galvanized wire, which will divide the box into squares 2 inches to the side. Then fill the box with garden soil or sand and it is ready for use. The ears should be laid on the floor or racks in a room so they can be numbered. From ear No. 1 remove five kernels, each from a different part of the ear, and place these in square No. 1; remove five kernels from ear No. 2 and place in square No. 2, and so on, until all the ears have been tested. After placing the kernels, moisten the material in the box thoroughly and cover with a glass or rug to keep the surface from drying. Place the tester in a room of ordinary living-room temperature, or about 70 Fahrenheit. After five days examine the corn, and any ears that fail to show a strong germination of the kernels should be removed and discarded.

"This method of testing corn is simple, convenient and rapid, and means much in securing strong, germinable seed. Only fourteen ears are required to plant an acre of ground. With an average yield each ear means five bushels in the fall. When a man can test five to eight bushels in a day and locate definitely all weak or bad ears, can he afford to neglect this important step in the preparation of his seed corn?"

Five cars of timothy seed have been shipped from Watertown, S. D., this season. This is the first year that timothy has been shipped out of this county (Codington) in appreciable quantities. Most of the seed raised heretofore has been kept for seed, but this year the supply exceeded the demand. This is also true of clover seed in some sections of Minnesota, a consid-

erable quantity having been marketed in the past few months.

KAFIR CORN AND MILO.

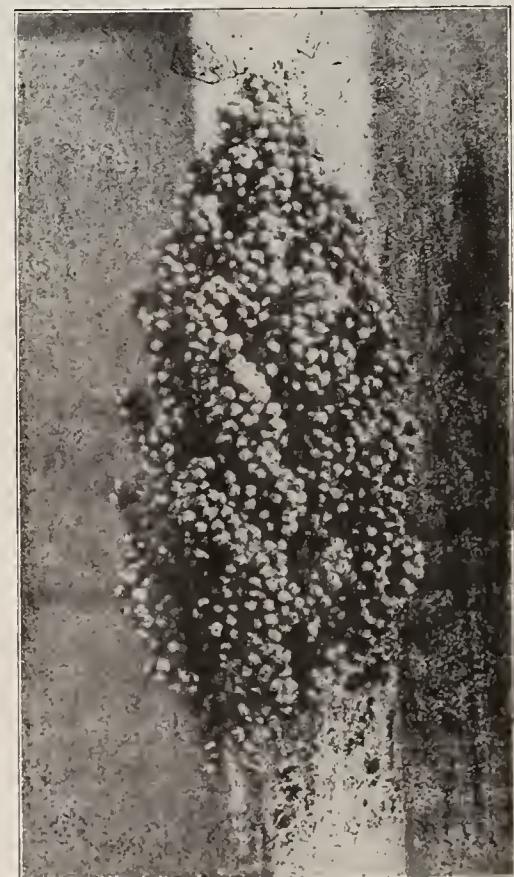
Kafir corn and milo belong to the sorghum family, but are called non-saccharine sorghums to distinguish them from the varieties yielding the



HEAD OF WHITE KAFIR CORN.

sweet juices from which sugar and molasses are made.

There are a number of varieties of the non-saccharine sorghums, some of which were brought into this country in colonial times, but the principal varieties, Kafir corn and milo, did not become popular as farm crops until about twenty



HEAD OF YELLOW MILO.

years ago. With the settlement of the semi-arid regions in the Southwest came the demand for a drought-resistant grain crop to take the place of corn, when the usefulness of Kafir corn and milo was demonstrated.

Kafir corn quickly found favor in Kansas and the area devoted to it increased steadily up to 1900. Since that time the acreage has remained quite constant, and the crop is one of the most important in the state. It is grown largely in Oklahoma also, while in Texas Kafir corn and

milo are the most important crops in the Panhandle and adjacent sections.

The two principal varieties grown in this territory are Black-Hulled White Kafir corn, commonly known as "White Kafir corn," and Yellow Milo. The former is characterized by its long, erect, slender head, compact and full of obovate seeds. The Yellow Milo has thick, compact, ovate heads and large, flattened seeds.

The grain of the non-saccharine sorghums is fed to cattle, hogs, sheep, horses and poultry and gives best results when ground. As this grain is very rich in carbohydrates and somewhat low in protein, some material rich in the latter constituent is usually fed with it. Chemical analyses show that the grain compares very favorably with corn. The heads of the non-saccharine sorghums contain rather more water and crude fiber than ear corn. The grain is somewhat less digestible than shelled corn, on account of its hard, flinty character.

In the United States the grain of the non-saccharine sorghums is not used to any great extent as food for man, although occasionally the meal is made into cakes or bread. White Kafir corn in particular makes a very good quality of meal and can be used like cornmeal for all purposes. The milling of these grains has received little attention, but the possibilities of their use as food for man are considerable. In many parts of Asia and in central and southern Africa the seed of the various sorghums is largely produced for human consumption and forms as large a part of the food supply of the people as do rice and wheat in other sections.

CANADIAN SEED DISTRIBUTION.

The government distribution of seeds to farmers in the Canadian Northwest is now under way. R. E. A. Leech and forty assistants are handling the work from headquarters at Regina. The grain is being purchased under the supervision of Chief Inspector Horn and is being cleaned and bagged at Winnipeg, Moose Jaw, Regina and Saskatoon. The railroads have made a flat rate on seed shipments and are allowing their local agents to act as distributors of the grain.

It is estimated that Alberta will require 100,000 bushels of wheat, 600,000 bushels of oats and 100,000 bushels of barley. Saskatchewan will need 100,000 bushels of wheat, 1,000,000 bushels of oats and 200,000 bushels of barley. Manitoba, however, will not need so much assistance from the government. It is expected that it will be necessary to import 50,000 bushels of oats.

THE NATIONAL CORN EXPOSITION.

The National Corn Exposition will be held in the Auditorium, Omaha, December, 1908.

The first exposition was held in Chicago last October and brought out a very large exhibit of corn. This year it seemed best to hold it in Omaha; Chicago, Kansas City and Denver have big stock shows, and it seems quite proper that Omaha should have the only grain show of a National character. By putting the date later in the season and also including other cereals and grasses, a very much larger exhibit may be expected.

The classification and premium list, judging, etc., will be under the auspices of the National Corn Association. It is expected to offer a premium list aggregating \$40,000.

The railroads entering Omaha, and some lines that do not reach Omaha, have already proffered very helpful aid in publicity work in the interest of the exposition.

It is suggested that some popular attraction, some high-grade spectacular, Sousa's Band or other desirable form of entertainment, be put on during the exposition period; the Omaha Auditorium affords splendid opportunity for such form of entertainment, after allowing liberal space for exhibits and concessions.

About fifteen states have already elected their

state vice-president to the National Corn Association, and have effected their local organization, and are prepared to co-operate in making up exhibits.

South Omaha and Council Bluffs have joined with Omaha and are lending splendid aid for the exposition plans.

TESTING ALFALFA SEED.

A bulletin issued by the Wisconsin Experiment Station describes an inexpensive tester for alfalfa seed. It consists of ordinary tin plates with cotton flannel pads cut to fit inside of the plate, as shown in the illustration.

The pads should be soaked in water and then squeezed in the hand to remove excessive moisture. Lay the first pad in the larger of the tin plates used and scatter 100 seeds on the pad; put the other pad on top of the seed and then cover with the smaller plate to retain moisture. Plates

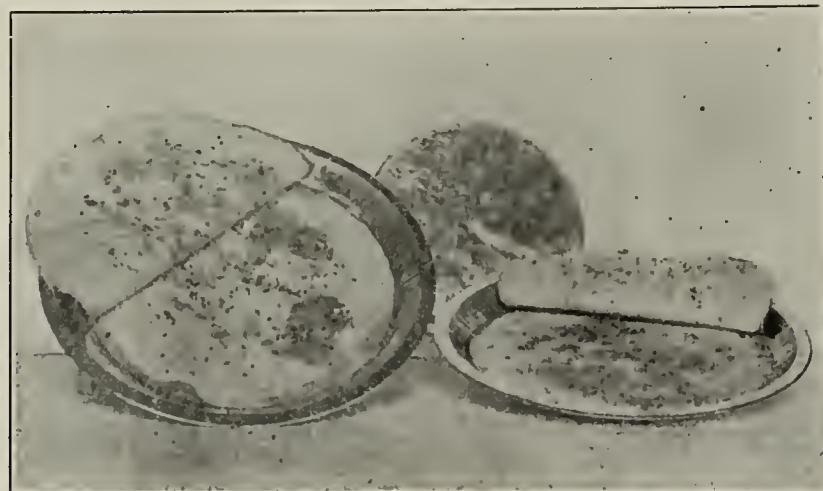
aggregate of more than two per cent, the seeds may be legally sold when tagged or labeled to show the percentage of each impurity present.

"There are special provisions of the statute defining adulteration of blue grass, orchard grass, red clover and rape seeds; also prohibiting the sale of seeds not true to name.

"Standards of purity and germinability are established and penalty fixed for sale of seeds not conforming to the standard. Such seeds may be sold if labeled to show percentage of purity and germinability.

"The statute requires the food and dairy commissioner to cause to be analyzed any sample of agricultural seed submitted to him. A fee of 50 cents for each sample is fixed. A competent man has been secured for this work and returns can be promptly made.

"The importance of sale and use of good seed, free from weeds, is so great that dealers and pur-



TESTING ALFALFA SEED.

should be kept at ordinary room temperature and examined at intervals of twenty-four hours. If the pads dry out, sprinkle them with water.

If seed is of high vitality at the end of four days fine, vigorous sprouts will be noticeable. The sprouted seeds should be removed at the end of the fourth day and the unsprouted seed left at least two days longer. The germinating power is expressed in per cent, and seed that shows a germinating test below 80 per cent should be regarded with suspicion.

MICHIGAN GRADES OF RED KIDNEY BEANS.

The following are the grades of Michigan Red Kidney Beans adopted by the Michigan Bean Jobbers' Association:

"Choice hand-picked Michigan Red Kidney Beans must be light red in color, bright, sound, dry, well screened, and must not contain more than one and one-half per cent of discolored and split beans, and not more than three per cent of blue beans."

"Michigan prime hand-picked Red Kidney Beans must be light red in color, fairly bright, sound, dry, well screened, and must not contain more than four per cent of blue beans."

IOWA SEED REGULATIONS.

H. R. Wright, state dairy and food commissioner of Iowa, has issued the following communication:

"The law of this state regulating the sale of agricultural seeds includes all the varieties of grass seeds, forage plants and the cereals.

"It prohibits the sale of agricultural seeds if any seeds of the following weeds are present, namely, wild mustard or charlock, quack grass, Canada thistle, wild oats, clover and alfalfa dodder, field dodder, or corn cockle. The only exception to this prohibition is the sale of seed for export outside the state, and sales by the grower upon his own premises for seeding by the purchaser.

"Other weed seed, sand, chaff, dirt or broken seeds or seeds not capable of germinating are classed as impurities, and when present in an

chaser can well afford to use every effort to keep and use only that which conforms to the law. Growers of seed should take notice that this law will be enforced and that clean, pure seed will be at a premium."

PROTEST AGAINST SEED BILL.

The directors of the Cincinnati Chamber of Commerce have passed a resolution protesting against the passage of what is known as "Substitute Senate Bill No. 430." This bill is designed to "prevent adulteration and misbranding of seeds."

It is contended that the application of the bill would include "commercial transactions in grain and seeds," instead of being confined to seedings alone, and the resolution adopted protests against the bill as "calculated to result in serious disturbance of grain and seed interests of the state, in which the producers would be sufferers with those who are the distributors or consumers of their products, upon whom the producers must depend for market disposition of grain and seeds intended for commercial purposes."

A committee will be appointed to take such necessary action to secure a wide-spread opposition to the measure. The bill gives the food and dairy commissioner charge of the inspection of grain and seeds.

FIELD SEED NOTES.

The clover seed bill introduced into the Ohio legislature by Representative Wood has been killed.

The North Dakota Agricultural College is prepared to test clover, alfalfa and other seeds for farmers.

Prof. R. A. Moore, of the agronomy department, advises Wisconsin farmers to kiln-dry their seed corn.

A legislative committee from the Toledo Produce Exchange arrived at Columbus on March 5 to work against the Berry clover seed bill. The committee was composed of E. L. Southworth,

W. H. Moorhouse, Fred Mayer, E. W. V. Kuehn, John Smith and E. H. Culver.

The plant of the L. L. Olds Seed Co. at Clinton, Wis., was burned on March 6, the loss being \$50,000.

A. W. Augspurger and others are organizing a company to operate the flour mill at Laramie, Wyo., and will also do a general seed business.

A local corn growers' association has been formed at Richmond, Ohio, and is affiliated with the state association. C. W. McCullough is president, and P. B. Floyd, secretary.

The Helms Seed Co. has succeeded Walter Helms in the seed business at Janesville, Wis. Edward Helms, son of Walter Helms, has been admitted to partnership and will have the management of the business.

The annual meeting of the Wyoming Plant & Seed Breeding Co. was held at Laramie on March 2, and the following trustees were re-elected: A. Haley, Laramie; Dr. V. T. Cooke, Cheyenne, and B. C. Buffum, Worland.

A bill has been introduced in the Maryland legislature to regulate the sale of seeds. It provides that the percentage of germination and amount of impurities contained in a parcel of seed must be guaranteed by the seller.

The Iowa Seed Dealers' Association is conducting an active campaign against the introduction of impure seeds into the state, and is advertising direct to the farmers. The Association was formed at Des Moines on June 5, 1907, and has the following officers: President, Charles N. Page, of the Iowa Seed Co., Des Moines; vice-president, Henry Field, of Henry Field Seed Co., Shenandoah; treasurer, J. T. Hamilton, of Hamilton Bros., Cedar Rapids, and secretary, W. C. Adams, of the Adams Seed Co., Decorah.

M. L. Bowman, of the Iowa State College, Ames, Iowa, has issued a warning regarding seed oats. He says: "The seed oat proposition is likely to be a serious one. So much of this year's crop weighs all the way from 15 to 25 pounds to the bushel. Large crops cannot be expected from weak seed. Let us see to it that our oats are thoroughly fanned so that nothing but the largest, plumpest grains are kept for seed purposes. In some localities will be found that after fanning there will be practically none left for seed. This should be found out in time that other seed may be secured. Now is the time when these matters should be given special attention, for soon the spring work will come on and then we are liable to feel that we do not have the time."

C. A. King & Co., of Toledo, quote a Scottish seed firm as follows on the clover situation: "For several seasons we have to report failures or very short crops in the United States and Canada, rendering these countries purchasers in our market instead of sellers. Last year an almost record crop of fine and medium seed in England made us not only independent of foreign supplies, but enabled us to even supplement the shortcoming of other countries; unfortunately the adverse weather last autumn destroyed to a large extent the English crop for the present season, so that supplies of home-grown seed can only be drawn from the very limited stocks of fine and medium seed carried over and the weather-stained samples of very indifferent qualities which are now coming forward as the result of the continued rain when the new crop was harvested. Hitherto we have been able to supplement the home supply by Russian, Hungarian and Chilian Red, the only countries that seem to have had a fairly good crop this season, while France and the larger part of Germany are not able to export, but obliged to be large importers themselves. Under all the circumstances, although prices are much above the ordinary level, there seems to be no prospect of markets receding."

ELEVATOR AND GRAIN NEWS

ILLINOIS.

S. Zorn & Co. of Downs, Ill., has added a United States Moisture Tester to his line of machines.

The Danforth (Ill.) Farmers' Elevator Co. has increased its capital stock from \$10,000 to \$15,000.

W. E. Rich of Stockland, Ill., has sold his elevator and grain business to Robert Lockhart of Bloomington.

The Consumers' Hay and Grain Co. of Chicago, Ill., has increased its capital stock from \$7,500 to \$10,000.

J. H. Harman of Beason, Ill., has acquired the Evans Elevator at Decatur from the Evans Elevator Co.

The Mattoon Farmers' Grain and Elevator Co. has been organized at Mattoon, Ill., with a capital stock of \$10,000.

The White & Rumsey Grain Co. of Chicago, Ill., has changed its name to the Prairie State Grain and Elevator Co.

P. W. Esscnpreis of Pierron, Ill., has purchased a 500-bushel scale from the Avery Scale Co. of North Milwaukee, Wis.

Chas. V. Barr and Kersten & Smiley of Plainfield, Ill., are recent purchasers of United States Moisture Testers from the Hess Warming and Ventilating Co.

T. E. James has purchased S. W. McSpadden's grain elevator at Kewanee, Ill. Until two years ago the plant was owned by the Johnston Grain Co.

G. F. Flessner of Secor, Ill., has installed a scale weighing 1,000 bushels per hour, purchased from the Avery Scale Co. of North Milwaukee, Wis.

E. R. Bacon has ordered a complete line of transmission machinery from the Weller Manufacturing Co. of Chicago, for the Wabash Elevator at Chicago, Ill.

J. C. Roe, Charles Smith, Charles Kanitz and Ed. Lincoln are members of a firm now erecting an elevator at Hayes, Ill. Mr. Roe is manager of the company.

Ed. Morris has received \$5,400 insurance on his burned elevator at Magnet, Ill., and will rebuild the plant just as soon as the necessary material can be collected.

Recent sales of United States Moisture Testers were made to Corn Products Co., E. R. Bacon and Bartlett, Frazier & Carrington for their Central Elevator, Chicago, Ill.

E. Baumgartner of Cissna Park, Ill., has sold his grain elevator to the Cissna Park Grain & Coal Co., which took possession on March 2. Philip Kibler is manager.

Twist Bros. of Rochester, Ill., will build an elevator at the new town of Calloway, to be established near Taylorville, Ill., by the Chicago and Illinois Midland Railroad Co.

A start has been made at Healey, Ill., towards organizing a farmers' elevator company, with a capitalization of \$6,000. Fred Carding, Fred Snyder, Miles Desire and others are interested.

The Little Indian Farmers' Elevator Co. has been incorporated at Little Indian, Ill., with a capitalization of \$5,000. Among the incorporators are Fred E. Virgin, George Carls and J. H. Peterfish.

Bids for the sale of the elevators at Holder, Fullerton, Colfax, Fletcher and Secor, Ill., belonging to John E. Hawthorne, bankrupt, were opened by J. Y. Chisholm, the trustee on March 3.

James T. Carmody of Merna, Ill., who has had his elevator leased to the Rogers Grain Co., in whose employ he has been for a dozen years, has embarked in the grain business for himself and is occupying his own elevator.

J. C. Roe, who lately retired from the stock company which conducted an elevator at Hayes, Ill., will erect an elevator this spring, which will have a capacity of 25,000 bushels. Mr. Roe has been very successful in the grain business.

Articles of incorporation have been filed by the Chebanse Grain and Coal Co. of Chebanse, Ill. The company is capitalized at \$15,000 and is incorporated by H. F. Nordmeyer, C. E. Robinson and H. R. Kinson. A deal has been effected whereby the firm comes into possession of the

Brown Grain Elevator, which was purchased from R. F. Cummings of Chicago.

Scott Blakely of Havana, Ill., has sold his grain elevator at Conover Station, Ill., to Rufus Blakely, a prominent farmer of Kilbourne township.

The Bluff Springs Co-Operative Grain Co. has organized at Bluff Springs, Ill., and is capitalized at \$8,000. Work on a new elevator will be begun at once under the direction of J. W. Blohm, Edward Klaker, H. J. M. Ruppel, Homer Coleman and S. S. Trussel.

Twist Bros., who operate elevators all over central Illinois, have purchased the Willeys (Ill.) Elevator of the Stonington Elevator Co., which makes them the owners of an even dozen elevators. Charles Hall has been retained as manager at Willeys.

Farmers of Wallace township have organized an elevator company and propose to erect an elevator at Ottawa, Ill. It will be thoroughly modern and of spacious capacity. The company has been incorporated as the Wallace Grain and Supply Co., with a capitalization of \$10,000. Mat Gahan is one of those interested.

The Sterling, Dixon and Rock Falls Packet Co., with headquarters at Sterling, Ill., has decided to let contracts for the construction of a barge and a floating elevator for use on the new Hennepin canal. The barge which is to be built will have a capacity of 10,000 bushels and others will be built as the demands for transportation of grain increase. The floating elevator is not to be erected for the purpose of storing grain, but will be used in loading the grain from dumps along the canal banks into the vessels which will carry it down the canal. Captain Shonts, manager of the company, stated that the prospects were very good for business the approaching season and that the company now has contracts for the hauling of more grain than it will be able to handle early in the season, which opens April 1.

IOWA.

The new elevator at Huxley, Iowa, is receiving grain.

Foley Bros. now have their new elevator at Nichols, Iowa, in operation.

The Farmers' Elevator Co. at Shenandoah, Iowa, will build an elevator this spring.

The farmers of Fairfax, Iowa, have purchased the Northern Grain Co.'s elevator at that place.

The Toronto Farmers' Elevator Co. of Toronto, S. D., has been incorporated with a capitalization of \$12,000.

Frank Brutty, Jr., of Washington, Iowa, has purchased an elevator at Yarmouth, Iowa, and will operate it.

A flour and feed house is being erected by the Farmers' Elevator Co. at Struble, Iowa, adjoining its elevator.

Improvements which will increase the capacity of the Interstate Elevator at Sioux City, Iowa, are being made.

Articles of incorporation have been granted the Farmers' Elevator Co. of Paton, Iowa, which is capitalized at \$7,500.

The Plymouth Elevator Co. will rebuild the elevator recently burned at Doon, Iowa. Work will be started in the spring.

Chaney & Bell have sold their grain business at Atlantic, Iowa, to W. J. McVinua, who will take possession on April 1.

R. W. Yelland, A. J. Cook and others are interested in the new farmers' elevator company being organized at Sheffield, Iowa.

D. C. Kilgore of West Chester, Iowa, has ordered a complete elevator outfit from the Weller Manufacturing Co. of Chicago, Ill.

Farmers in the vicinity of Clare, Iowa, are talking seriously of organizing a company to purchase one of the elevators at that place.

Grant Dorsey has acquired the Garden Grove Elevator Co.'s property at Garden Grove, Iowa, from H. F. Strohl, C. D. Wheeland and W. H. Wales.

The Milwaukee Railroad Co. has granted the Farmers' Elevator Co. a site for a 30,000-bushel elevator at Ethan, S. D. Work will be commenced at an early date.

George Terwilliger of Sioux City, Iowa, has sold his string of eight elevators in Nebraska, Iowa and South Dakota for a consideration of \$8,000, possession being given on April 1. The Iowa houses are sold to the Tiedeman Elevator Co. of Sioux City. They are located in Hornick, Little Rock and Plessis. The Tiedeman Co. also bought the South Dakota property, located in Jefferson and Hudson.

The Nebraska elevators are located in Laurel, Winside and Dixon. They were bought by the McCaull-Webster Grain Co. of Minneapolis.

A farmers' elevator company has been organized at Chapin, Iowa, and an elevator will be erected, either on the Des Moines & Northern or the Iowa Central railroad. George Willhoft is president of the company; E. Y. Croin, vice-president; I. L. Deam, treasurer, and S. O. Croin, secretary.

The Dillon Farmers' Elevator Co. has been incorporated at Dillon, Iowa, with a capital stock of \$10,000. An elevator formerly owned by C. B. Johnson has been purchased and the new company will at once engage in business. W. R. Lipincott is president; Harry Buchlacker, vice-president; H. E. Foote, secretary, and A. W. Coppock, treasurer.

During February the McCaull-Webster Elevator Co. of Minneapolis, Minn., negotiated several deals that resulted in the acquisition of a large line of elevators. Three elevators owned by George Terwilliger of Sioux City, Iowa, were purchased. These plants are all in Nebraska. Another string of eighteen elevators in Nebraska owned by Blenkiron Bros. of Sioux City were also acquired, the purchase price being withheld. It is now understood the McCaull-Webster Co. owns fifty elevators in Nebraska and South Dakota. Quite likely the company will establish headquarters in Sioux City, where it can better look after its interests.

The Independent Grain and Lumber Co. has been formed and incorporated at Mason City, Iowa. It is capitalized at \$250,000. The company comes out of the reorganization of the Nye-Schneider-Fowler Co., which owns one of the most extensive strings of elevators along the Northwestern railroad lines. Only two members of the old firm appear in the new firm, they being Frank Fowler, president, and Ray Nye, vice-president. Albert J. Zingre, formerly local manager at the old company's offices in Mason City, is the secretary. William Fried is treasurer and James Bradley is his assistant. It is announced that the company will broaden its business from the older firm by including live stock in its business, as well as grain, lumber, coal and building material. The headquarters of the Nye-Schneider-Fowler Co. is in Fremont, Neb.

EASTERN.

H. A. Slayton & Co. have erected a grain elevator at Morrisville, Vt.

It is expected the Taunton Grain Co. of Taunton, Mass., will erect a new building this spring.

George Craver's Sons of Binghamton, N. Y., have ordered a Richardson Automatic Scale for prompt shipment.

It is reported that Merrill Bros. have sold their grain business at Milford, N. H., to the Whitings of Wilton.

The Springfield Flour and Grain Co. of Springfield, Mass., has recently bought a feed store at Granby, Mass.

E. A. Hatch will have charge of the grain business heretofore conducted by the late W. F. Edson at Randolph, Vt.

On February 27, the Marlboro (Mass.) Grain Co. received residents of the town at the formal opening of its new elevator.

W. C. Smith of Rochester, N. Y., has purchased a Richardson Automatic Scale for his elevator, which will be shortly installed.

The Phelps & Sibley Co. of Cuba, N. Y., has ordered a second automatic scale from the Richardson Scale Co. of New York.

Bunditt Bros. of Rutland, Vt., are installing the second Richardson Scale, after a satisfactory test of a machine purchased a little while ago.

The Hartmann Brewing Co. of Bridgeport, Conn., is installing the Richardson Automatic Elevator Scale for weighing malt into their brewery.

The Springfield Flour and Grain Co. of Springfield, Mass., has ordered an elevator outfit from the Weller Manufacturing Co. of Chicago, Ill.

A. Guckenheimer & Bro. of Pittsburg, Pa., have placed an order with the Hess Warming and Ventilating Co. for a United States Moisture Tester.

An order has been placed with the Weller Manufacturing Co. of Chicago, Ill., for a power transmission outfit, to be installed by the Husted Milling Co. of Buffalo, N. Y.

C. W. Bowker of Worcester, Mass., has installed a 3-bushel sacker scale and a 1,000-bushel (per hour) elevator scale, purchased from the Avery Scale Co. of North Milwaukee, Wis.

A contract has been received by the Weller Manufacturing Co. of Chicago, Ill., for belt conveyors and power transmission machinery for the Northern Cereal Elevator, now being built at Bal-

timore, Md., under the supervision of James Stewart & Co. of Chicago.

The Richardson Scale Co. of New York shipped from their works at Passaic, N. J., a earload of grain scales for Nebraska, which included twelve machines for the Trans-Mississippi Grain Co.

W. H. Cunningham & Son have opened their new elevator and feed mill at Malden, Mass. The plant is operated by a gas engine. Included in its equipment is a Sprout-Waldron Receiving Separator.

E. Crosby & Co. have acquired the business of H. A. Wilder, at North Hatfield, Mass., and in the future will operate it as the North Hatfield Grain Co. Clarence R. Bensou of Brattleboro, Vt., will be in charge.

H. A. Slayton & Co. of Morrisville, Vt., are erecting an addition to their grain elevator, which will increase the storage capacity 1,000 bushels. An elevator and power shovel to be run by a special motor will also be installed.

Articles of incorporation have been filed by the Mystic Grain Co. of Stouington, Conn., capitalized at \$10,000. Those interested are Elmer E. Rogers, New London; Charles W. Gildersleeve, Graton, and Cortland K. Palmer of New London.

Incorporation papers have been granted the Struyk Grain Co. of Paterson, N. J., which is capitalized at \$25,000. The company purposes to deal in grain, oats, hay, cereals, etc. Those who are interested are Jacob De Rose, Sebastian Struyk and Barney Leest.

It is announced that the Philadelphia & Reading Railway and Charles M. Taylor's Sons, who own and operate the Port Richmond (Pa.) grain elevator, have virtually decided to provide a Hess Grain Drier in connection with the elevator. Since the Commercial Exchange gave up fruitless efforts to get the Pennsylvania Railroad to do something, and turned to the Reading, experts have been sent to both Baltimore and Boston to examine and report upon grain-drying facilities at those ports. A drier with 15,000 to 20,000 bushels daily capacity is under favorable consideration. Absence of grain-drying facilities at Philadelphia virtually have prevented exports of last year's corn crop through this port.

SOUTHERN AND SOUTHWESTERN.

The Miller Grain Co. will soon complete the installation of a grain elevator at Fletcher, Okla.

The Ben T. Brooks Co., of which Ben T. Brooks is president, will install an elevator at Columbus, Ga.

S. Zorn & Co. and A. Brandeis & Son of Louisville, Ky., are among recent purchasers of United States Moisture Testers.

The Garrett Grain and Mill Co. of Garrett, Jefferson County, Texas, has increased its capital stock from \$20,000 to \$25,000.

The Tulia Commercial Club, of which W. A. Donaldson is president, is endeavoring to secure a grain elevator for Tulia, Texas.

Smithson & Richmond of New Richmond, Va., have ordered an elevator outfit from the Weller Manufacturing Co. of Chicago, Ill.

The White Star Milling Co. of Staunton, Va., is installing a Richardson Automatic Elevator Scale to weigh wheat from cars into bins.

Jodie Browder has purchased the old Burton Mill site at Fulton, Ky., and a large elevator and flour mill will soon be built upon it.

The T. H. Bunch Co. of Little Rock, Ark., has ordered transmission and elevator machinery from the Weller Manufacturing Co. of Chicago, Ill.

The Steel Elevator and Storage Co. of Nashville, Tenn., has purchased a United States Moisture Tester of the Hess Warming and Ventilating Co.

The Sparger Milling Co. of Bristol, Va., has purchased from the Richardson Scale Co. a 2,000-bushel elevator scale for receiving wheat and corn into its elevator.

Browder Bros. will erect a 100,000-bushel grain elevator at Fulton, Ky., in connection with a 200-barrel flour mill. G. W. Parker is manager of the company.

An order has been placed with the Weller Manufacturing Co. of Chicago, Ill., for a complete elevator outfit, to be installed by Henry A. Klyce & Co. of Dyersburg, Tenn.

The R. C. Stone Co. of Springfield, Mo., has just completed the 100,000-bushel rice elevator for the McFadden-Wiess-Kyle Rice Milling Co. at Beaumont, Texas. There are twenty-three tanks with a capacity of 100,000 bushels. They are built of steel in close proximity to each other, each be-

ing fifty feet high and twelve feet in diameter, and entirely fireproof. Each tank is independent of the other, yet each feeds into the other by a patent feed.

The Henderson Elevator Co. of Henderson, Ky., has placed an order with the Hess Warming and Ventilating Co. for a United States Moisture Tester.

The Payne-Gardner Elevator Co. of Gallatin, Texas, will rebuild its elevator, recently destroyed by fire at a loss of \$40,000. Lewis Payne and E. S. Gardner are the owners.

Callahan & Son will erect a new grain elevator at Louisville, Ky., which will cost about \$20,000. The structure will be of steel, brick and concrete and will be 68 feet high. It will have an area of 143,000 cubic feet.

The Texas Rice Farmers' Association and Exchange of Houston, Texas, proposes to erect a rice elevator and warehouse having a capacity of 50,000 barrels of bulk rice and 50,000 sacks of rice. About \$50,000 will be expended.

The Josey-Miller Grain Co. will rebuild its elevator at Beaumont, Texas, which was recently destroyed by fire. A most desirable site has been secured for the elevator and mill and the contract has already been let for the elevator. It was awarded to the R. C. Stone Co. of Springfield, Mo., and will cost about \$30,000.

MINNESOTA AND WISCONSIN.

A farmers' elevator company is being organized at Gibbon, Minn.

A farmers' elevator company is being promoted at Truman, Minn.

The Woodworth Elevator Co. has closed its house at Hoffman, Minn.

It is reported a farmers' elevator may be established at Moland, Minn.

The Great Western Elevator at Delhi, Minn., has been closed for the season.

The Sheffield Milling Co. has closed its elevator at Hartland, Minn., for the season.

The Underwood Grain Co. of Underwood, Minn., will build an addition to its plant.

Business men and farmers have secured a site for an elevator at North Foud du Lac, Wis.

Farmers at Gaylord, Minn., recently met to discuss organizing an elevator company.

The Farmers' Grain and Fuel Co. of Vesta, Minn., has suspended operations for the season.

A meeting of farmers was held at New London, Minn., recently to consider building an elevator.

Manager Morris closed the Northwestern Grain Co.'s Elevator at Fairmont, Minn., on March 1.

The Oakfield Elevator Co. of Oakfield, Wis., has increased its capital stock from \$7,000 to \$8,000.

The Davenport Elevator Co. has closed its elevators at Kanaranzi and Luverne, Minn., as well as at Midland, Iowa.

A meeting will be held by farmers around Barnesville, Minn., on March 16 to consider the erection of an elevator.

The Western Elevator Co. is closing out at Wanda, Minn., and manager Joe Ruddy will be transferred to another point.

Repairs are being made in the Sleepy Eye Milling Co.'s Elevator at Evan, Minn., which Agent W. P. Hoy is about to reopen.

B. Sterns & Sons of Milwaukee, Wis., have purchased steel elevators, transmission and conveying machinery from the Weller Manufacturing Co. of Chicago, Ill.

Members of the Hendrum (Minn.) Elevator Co. met on March 14 to discuss the advisability of reorganizing into a co-operative company. A. M. Eckmann, H. O. Rask and others are interested.

C. G. Williams, formerly superintendent of the terminal elevator at Sioux City, Iowa, has acquired an interest in an elevator at St. Paul, Minn., and will manage the plant in the future.

A farmers' elevator company has been organized at Lonsdale, Minn., and will soon be ready for business. Joseph Skluzacek is president; Thomas Jirik, treasurer; J. K. Johnson, secretary, and John Wilby, manager.

Material is on the ground for a new farmers' elevator at Burr, Minn. Work will be commenced on its construction at an early date. An Avery Scale, weighing 1,500 bushels per hour, will be installed.

Ole O. Sageng, president of the Dalton (Minn.) Co-Operative Warehouse Association, has advertised for sealed bids, to be opened March 20, on furnishing machinery and material for and building complete a 25,000-bushel modern elevator at

that place. All serviceable material in the present warehouse is to be used in the new structure.

The Farmers' Elevator Co. of St. Peter, Minn., has asked the District Court to appoint a receiver for the purpose of dissolving the company.

The Osceola Mill and Elevator Co. of Osceola, Wis., will put in a line of grain, hay, flour and feed and have secured the Spafford & Cole warehouses for the purpose. E. H. Rogers of Soo will manage the business.

Articles of incorporation have been filed by the Heit & Schuedler Co., grain and commission merchants of Superior, Wis. The firm is capitalized at \$25,000 and the incorporators are Erhard Schuedler, Claude Z. Luse and Minnie Ducey.

The Northwestern Consolidated Milling Co. has just announced that it will begin as soon as possible the construction of a 1,000,000-bushel fireproof grain elevator. It is to be located in the heart of the Minneapolis milling district, between Mills A and B of the company's group. As yet, plans for the new structure are not complete. A new boiler house and workinghouse will be a part of the addition.

The Andrews & Gage Elevator at Wadena, Minn., was closed during February by Manager Ed. Colson. It is stated that the elevator companies are closing many houses in sections of the country where wheat raising is a thing of the past, as it is in Wadena and adjoining counties. In Wadena the elevators on the N. P. are operated by the Andrews & Gage Co. and the Monarch Elevator Co. Andrews & Gage agreed to withdraw from this field, and it is probable that the elevator will be torn down and moved to some other point. At some other stations the Monarch Co. will leave the field clear to Andrews & Gage. In other words, the companies are dividing the territory. At Richville the elevator is being torn down and removed.

OHIO, INDIANA AND MICHIGAN.

A new elevator 50x100 feet in dimension is to be built at Mount Forest, Mich., this spring.

Ed. McLaughlin, dealer in grain and seeds at Nevada, Ohio, is out of the trade at present.

O. M. Clark has purchased W. Hardman's Elevator at Cable, Ohio, and will conduct the business as in the past.

Burglars broke into the offices of the Washer Grain Elevator at Van Wert, Ohio, on March 2, but secured little for their trouble.

The Moore Milling Co. of Princeton, Ind., will erect a grain elevator at Kings, Ind., on the site of the recently burned flour mill.

The Niles Grain Co. of Niles, Mich., has recently purchased a complete elevator outfit from the Weller Manufacturing Co. of Chicago, Ill.

There is talk of a new grain elevator being built on the property of I. A. Miller at Stockwell, Ind., where an old warehouse now stands.

McCormus & Hornback, proprietors of an elevator at Ackley, Ind., have purchased the elevator at Rossville from William and John Hochstettler.

The Superior Portland Cement Co. of Superior, Ohio, has installed an Avery Scale for handling crushed rock and shale. It has a capacity of 750 tons per day.

The Gwinn Milling Co. has completed its grain elevator at Columbus, Ohio, and is now erecting seven smaller buildings to be used in connection with the larger.

T. B. Marshall and C. Harmony of the Kirkwood Grain Elevator at Kirkwood, Ohio, have installed a new corn sheller having a capacity of 500 bushels per hour.

The W. H. Gardner Grain and Milling Co. of Bellevue, Ohio, has purchased a scale for weighing to the first break from the Avery Scale Co. of North Milwaukee, Wis.

The following Indiana firms have recently purchased United States Moisture Testers of Hess Warming and Ventilating Co.: McCray & Morrison, Kentland; Goodland Grain Co., Goodland; McDonald & Co., New Albany; Sam Finney, Wellsboro.

It is reported that Dochsteiner Bros., who formerly operated the elevator at Moffit Station, Ohio, are considering the purchase of the site recently made vacant by the fire there and will erect an up-to-date and completely equipped elevator to be run by gasoline power.

John Donley has purchased from B. H. Palmer the latter's interest in the grain firm of B. H. Palmer & Son, and after April 1 the firm will be known as Palmer & Donley. The firm of B. H.

Palmer & Son has been in existence for eight years, through all of which it has prospered.

E. W. Elmore of South Bend, Ind., has purchased Twin Steel Elevators and Conveyors from the Weller Manufacturing Co. of Chicago, Ill.

WESTERN.

A farmers' elevator is now said to be assured at Moore, Idaho.

The new 50,000-bushel elevator is nearly completed at Ashton, Utah, and is already receiving grain.

There is considerable likelihood of the Edwall Grain Elevator Co. building a commodious elevator at Edwall, Wash., this summer.

The Idaho Falls Malting Co. of Idaho Falls, Idaho, has purchased a complete elevator outfit from the Weller Manufacturing Co. of Chicago, Ill.

A number of farmers at Lexington, Ore., have petitioned the state railroad commission for an order compelling the O. R. & N. Co. to permit them to build a grain warehouse alongside the railroad switch at Lexington. The farmers allege that Kerr, Gifford & Co. have the only warehouse at Lexington and charge 75 cents a ton for handling grain.

The Royal Milling Co. of Great Falls, Mont., has authorized Manager Sherwood to construct five elevators, each with a capacity of 30,000 to 50,000 bushels of grain. One of these elevators will be located at Belt, one at Cascade, one at either Stockett or Sand Coulee, one at Mendon, in Fergus County, and one at a point southeast of Belt, probably either at Raynesford or Spionkop. Work on the construction of these elevators will go forward as soon as the weather permits and the material can be assembled, and they will be rapidly pushed to completion, so as to be able to handle the crops of the coming season.

THE DAKOTAS.

There will soon be a farmers' elevator at Alexandria, S. D.

A farmers' elevator company is being discussed at Cando, N. D.

Farmers have organized an elevator company at Noonans, N. D.

The farmers at Baldwin, N. D., contemplate building an elevator.

J. B. Meharg has purchased O. F. Edwards' elevator at Groton, S. D.

The Burns Elevator at Glen Ullin, N. D., is open and ready for business.

It is rumored the Duluth Elevator Co. will close its plant at Dunseith, N. D.

The Society of Equity talk of building a farmers' elevator at Wales, N. D.

Work will soon be started on the new Wait & Dana Elevator at Corsica, S. D.

A. W. Barber of Manchester, S. D., has sold his elevator to James Mulligan.

Farmers in the vicinity of Galchutt, N. D., have acquired an elevator at that place.

Farmers at Columbia, S. D., held a meeting recently to discuss building an elevator.

The Hewitt & Connor Co. of Arlington, S. D., has built a 35,000-bushel elevator at Norden, S. D.

The Federal Elevator at Cooperstown, N. D., was closed on March 1 by John Ruttle, the agent.

The Farmers' Elevator Co. at Kramer, N. D., has increased its capital stock from \$5,000 to \$10,000.

W. Pepper, W. R. Scobie and others are organizing a farmers' elevator company at Edgeley, N. D.

Farmers interested in erecting or purchasing an elevator held a meeting at Britton, S. D., on March 10.

C. G. Williams of Sioux City, Iowa, has purchased an interest in the Plymouth Elevator Co. of Sioux Falls, S. D.

Articles of incorporation have been granted the Kidder Elevator Co. of Kidder, S. D. It is capitalized at \$50,000.

Edson Brown, M. Endicott and others are interested in the organization of a farmers' elevator company at Maxlass, N. D.

A meeting of farmers in the vicinity of Wolcott, N. D., was held early in March to consider the advisability of building an elevator.

An effort is being made to organize a farmers' elevator at Colfax, N. D., so as to buy or build an elevator and feed mill this spring.

Independent elevator men of South Dakota have organized the Farmers' Grain Dealers' Association of South Dakota. The following officers were elected: President, G. M. Bowers, Loomis; secre-

tary, L. M. Doyle, Letcher; treasurer, L. O. Ellison, Vermillion.

The Farmers' Co-Operative Elevator Co. is making arrangements to build an elevator at Armour, N. D. A site has already been secured.

E. J. McDermont has disposed of his elevator at Rugby, N. D., to a Minneapolis milling company. Mr. Ryding has been retained as manager.

A. E. Cole, F. N. Prouty, David Sour and others are taking an active interest in the organization of a farmers' elevator company at Hayti, S. D.

Mr. Eli, editor of the Armour Chronicle, has secured an elevator site at Douglas, S. D., and will erect an elevator, to be operated independently.

Senator Plain and others are interested in the organization of a farmer's elevator company at Milton, N. D. It will be capitalized at \$25,000.

The Balfour (N. D.) Farmers' Exchange has been organized by A. B. Anderson and others, with the intention of erecting an elevator this spring.

A farmers' elevator company has been organized at Norden, S. D., but has not yet built an elevator. It is reported it may purchase one of three there now.

A farmers' elevator is now an assured thing at Peever, S. D., for work has already commenced on the structure. Charlie Rodin and others are interested.

James Duncan is interested in the organization of a farmers' elevator company at Josephine, N. D., and it is quite possible an elevator will be built this summer.

The Abraham-Schulz Co. of Wentworth, S. D., has built a 30,000-bushel elevator and C. W. Derr of Mitchell, S. D., has built a 25,000-bushel elevator at Norden, S. D.

Denhart & Alguire will erect a larger elevator than the one which recently burned down at White, S. D. It will have a capacity of about 50,000 bushels of grain.

A farmers' elevator company has been organized at Leeds, N. D., and more than \$5,000 in stock already subscribed. P. O. Fossum is president pro tem, and A. E. Tufte secretary pro tem.

Farmers in the vicinity of Alcester, S. D., met recently to discuss the formation of an elevator company, providing a site can be secured from the Chicago & Northwestern Railroad Co.

The Souris Farmers' Elevator Co. has been incorporated at Souris, N. D., with a capitalization of \$50,000. Among those interested are Robert Brander, Nels Magnuson, F. A. Brainerd and others.

Recently the Ortonville (Minn.) Elevator and Milling Co. purchased Charles Luff's interest in the elevator at Big Stone City, S. D., including all book accounts, grain, etc., belonging to the business.

Incorporation papers have been granted the Osnabrock Farmers' Elevator Co. of Osnabrock, N. D., which is capitalized at \$25,000. The incorporators are Sever Berger of Milton, N. D.; Robert Griffith of Osnabrock; Peter Moe and others.

A farmers' elevator company has been organized at Berlin, N. D., and more than \$8,000 has been subscribed. The directors are Herman Goehl, Henry Heizler, J. C. Anderson, J. L. Orness, H. G. Fenn, H. O. Gordon and Ed. Heffelfinger.

A. J. Rieger of Wallace, S. D., has recently acquired Warner Putnam's Elevator at Florence, S. D., as well as one other elevator west of Wallace, on the M. & St. L. Ry., which makes him five on this line. He also owns three elevators on the C. M. & St. P. R. R.

A farmers' elevator company has been incorporated at Englevale, N. D., with a capitalization of \$25,000. Among those interested are Ed. Peterson, Peter Berg, Jacob Straw, Henry Hanson and others. An effort will be made to purchase an elevator.

The Anselm Farmers' Elevator Co. has been organized at Anselm, N. D., and a 25,000-bushel elevator is promised. M. B. Greene is president; H. R. Kruger, vice-president; Jacob Walters, vice-president; Paul W. Froemke, secretary and vice-president, and E. P. Rhinehart, treasurer.

Advices from Willow Lake, S. D., state that the Northwestern Elevator Co. has leased the building which it lately sold to the Farmers' Elevator Co. The latter concern decided it was not expedient to begin operations at this time of the year. S. N. Smith will continue as manager.

C. T. Mears has disposed of his elevator at Milton, N. D., to Ely-Salyards & Co., a grain commission firm of Duluth, with which Mr. Mears was formerly employed. The purchasers are not in the elevator business, but, it is understood, bought the property so as to again secure the

services of Mr. Mears, who will handle cash wheat for them at Duluth.

The Farmers' Elevator Co. of Langdon, N. D., has been organized with a capital stock of \$50,000. About \$4,500 has been subscribed and enough more stock to aggregate \$10,000 will be sold at once. Joseph Heapy is president, E. J. Evans vice-president and Robert Work secretary and treasurer.

MISSOURI, KANSAS AND NEBRASKA.

J. M. Wine & Sons have their new elevator at Clarence, Mo., in operation.

Fred H. Beckford has lately purchased the East Elevator at Seward, Neb., for \$4,000.

J. H. Dougal & Son have purchased Henry Schaffert's Elevator at Rock Creek, Kan.

The Farmers' Elevator Co. of Linn, Kan., has been incorporated, with a capital stock of \$10,000.

Farmers held a meeting at Talmage, Kan., recently to talk about forming an elevator company.

Simon Stadel of Hoyt, Kan., has purchased the elevator at Ozawkie, Kan., and will take charge of it.

The Howard Mills of Wichita, Kan., are putting in a Richardson Automatic Elevator Scale for receiving wheat.

Work has been started on the foundation of the Lamar Milling & Elevator Co.'s new 30,000-bushel elevator at Garden City, Kan.

John Dolozal of Wahoo, Neb., has purchased a 1,000-bushel automatic elevator scale from the Richardson Scale Co. of New York.

B. C. Ragan & Sons are building a 15,000-bushel elevator at Cummings, Kan., and expect to have it completed in time for the harvest.

The Jones Elevator Co. is seeking new warehouse room at St. Charles, Mo., and is negotiating for a building belonging to the city.

The Farmers' Elevator and Mercantile Co. of Brown's Spur, Kan., will dispose of more stock and will either purchase or build an elevator.

Farmers recently met and acted favorably upon a plan to build an elevator at Crete, Neb. Committees were appointed to organize a company.

T. J. McCormack of Germantown, Kan., has transferred his interests in the elevator at Leona, Kan., to his sons, T. L. and C. P. McCormack.

A. S. Nicholson Grain Company of Kansas City, Mo., has been incorporated; capital stock, \$30,000; incorporators, W. S. Nicholson, M. W. Nicholson and R. L. Nicholson.

The Nebraska-Iowa Grain Co. of Pleasant Dale, Neb., has ordered a scale from the Avery Scale Co. of North Milwaukee, Wis., which will weigh 1,000 bushels per hour.

C. W. Sherman, T. A. Griffin and others will form a farmers' elevator company to erect an elevator at Protection, Kan. More than \$2,000 has been subscribed toward the plant.

The Ralston Purina Co. of St. Louis and the Burlington Elevator Co. of St. Louis, Mo., have just installed United States Moisture Testers purchased of the Hess Warming and Ventilating Co.

F. G. Olson, for many years in the grain business and until lately with the A. R. Clark Grain Co., has formed the F. G. Olson Grain Co. at Wichita, Kan., and will personally conduct the business.

An order has been placed with the Avery Scale Co. of North Milwaukee, Wis., for a scale weighing 500 bushels per hour, to be installed by the Turon Mill and Elevator Co. of Turon, Kan.

Farmers in the vicinity of Coldwater, Kan., are discussing a grain elevator, and recently held a meeting to talk it over. B. F. Martin, N. G. Stephens, J. W. York and others are interested.

The Western Star Mill Co. is building a new elevator at Palco, Kan. Work on the structure is well under way and it is being rushed to completion. The old elevator proved too small to handle the grain crop.

The Rock Grain Co. will build a new warehouse at Pawnee Rock, Kan., which will be 26x62 feet in size. It will be of steel construction, with a cement floor. The old warehouses have been moved back of the new site.

The Western Star Mill Co. at Salina, Kan., has acquired the Nelson Elevator at Falun, Kan., from V. G. Miller. Although the plant is one of the largest in that section, it is to have its capacity increased and a number of important improvements made.

The Newton Grain Co. of Springfield, Mo., has contracted for the erection of a new building, which will cost \$10,000. It will be two stories high, 150 feet deep and 60 feet wide, of pressed brick construction. The firm has been in business for twenty-five years and Manager Dwight E. Newton de-

clarifies the new building is necessary because of the increasing business.

P. H. Pelkey, the elevator contractor, of Wichita, Kan., has just received the contract to build a \$35,000 terminal elevator at Council Bluffs, Iowa.

The old elevator occupied so many years by the late John Miltner of Wichita, Kan., is to be razed by the creditors and the site it occupies placed upon the market.

Articles of incorporation have been filed by the Merchants' Stock and Grain Co. of St. Louis, Mo. The capital stock is \$10,000, of which half is paid up. The incorporators are Edwina H. Wieshof, C. P. Carroll and Al. F. Letter. The company will conduct a commission business.

About seventy-five farmers met recently at Neshawka, Neb., and completed an organization for the operation of a grain elevator. The officers are J. S. Routh, president; William Ost, vice-president; R. C. Pollard, secretary, and S. C. Shumaker, treasurer. A proposition to purchase the H. M. Pollard Elevator is being considered.

During February the Nye-Schneider-Fowler Co. of Omaha, Neb., filed articles of incorporation, with a capitalization of \$500,000 listed. The directors of the grain and elevator company will be elected in July. Until then the board will embrace Frank Fowler, Ray Nye, R. B. Schneider, J. M. Jenks, James Bradley, George C. Johnston and John R. Morris.

CANADIAN.

The grain elevator at Goderich, Ont., is being enlarged so as to hold 1,000,000 bushels of grain.

It is reported the Wilson Leslie Co., recently organized at Saskatoon, Sask., is about to erect a commodious elevator and flour mill there.

A line of elevators is to be built along the Grand Trunk Pacific railroad between Winnipeg, Man., and Saskatoon, Sask., this summer by the Northern Elevator Co.

Grain receipts at Port Colborne, Ont., during the past season amounted to 1,669,135 bushels, an increase of 173,697 bushels over the previous year, notwithstanding that none was received during April and December, 1907.

It is reported the Saskatoon Milling and Elevator Co. of Saskatoon, Sask., will mortgage its property and increase its capital for the purpose of erecting three new elevators. They will be built at Delisle, Zealandia and Lanigan, Sask.

For the five months ended January 31 the amount of grain received at the elevators at the head of the lakes, from points in Manitoba, Saskatchewan and Alberta, was 36,665,699 bushels, against 34,629,480 bushels for the same period 1906-07.

N. R. Price is seeking to lease from the London (Ont.) city council, which controls the London and Port Stanley railway, certain lots at Port Stanley, Ont., on which to erect an elevator. During 1907 the company which Mr. Price represents handled 750,000 bushels of wheat, all of which was handled over the L. & P. S. Ry. and distributed between Essex and Ayr, Ont., and it is stated that if the company had two or three times its present elevator capacity the business would be forthcoming. The wheat trade at Port Stanley is a new branch of business.

T. S. Matheson, formerly traveling superintendent for the Winnipeg (Man.) Elevator Co., has gone into the elevator business for himself. He has secured elevators at Caron, Midale, Stilson and Arrow River, Man., as the nucleus of a system he proposes to establish. On the same line of railroad Mr. Matheson will build two more elevators of 25,000 bushels' capacity each this spring. This will give the farmers in these localities a capacity for "immediate" storage of 150,000 bushels of grain. Mr. Matheson is the sole proprietor of this string of elevators. He is one of the best known men in the grain trade in Brandon, Man., and the province at large.

More than 1,000 bushels of grain were recently recovered by the police of Buffalo, that had been stolen from grain cars. A number of arrests were made and prosecutions were pressed by the Chamber of Commerce.

The winter grain fleet is unloading slowly at Buffalo since the ice became heavy in the harbor; and on March 1 there were 10 or 12 vessels, out of an original thirty, the emptying of which had not yet begun.

The Central Granaries Co. of Lincoln, Neb., has appealed from the action of the city and county boards of equalization, claiming that \$47,975 worth of grain assessed by the county assessor was not permanent, but was only in transit, or such of it as was in the company's elevator at the time the assessment was made.

THE EXCHANGES

The twenty-fifth annual report of the New Orleans Board of Trade has been received.

This office is in receipt of the revised rules and regulations of the Omaha Grain Exchange.

The appointment of W. H. Hopkins as traffic manager of the Chicago Board of Trade has been confirmed by the directors.

The employees of the inspection department at Cincinnati presented Homer Chrisman, the retiring chief inspector, with a handsome clock as an appreciation of his administration of the office.

Frank E. Marshall, formerly of the firm of L. K. Passmore & Co., grain exporters, has been appointed secretary of the Philadelphia Commercial Exchange to succeed the late Lawrence J. Logan.

Matters relating to the quotation service between the Chicago Board of Trade and the Minneapolis Chamber of Commerce have been amicably arranged and Minneapolis quotations are now posted on the Chicago Board.

As an appreciation of his services George F. Stone, secretary of the Chicago Board of Trade, has been voted an increase in salary of \$1,000 a year, making him the recipient of \$10,000 per annum. Assistant Secretary Walter S. Blowney was also voted an increase.

At a recent meeting of the Portland (Ore.) Board of Trade it was proposed to establish a trading room in the quarters the Board will occupy in new Commercial Club Building. It was also proposed that the Board should incorporate, on a basis of 1,000 membership and a capital stock of \$5 per share, each member to hold a share of stock.

It is announced that the reorganized Superior Board of Trade may have the fifteen-minute quotations of the Chicago Board of Trade. It is hardly expected that business will become active on the Superior board until June or July. Duluth grain men, it is said, will not be represented on the Board, as it is understood that the "100-mile" rule of the Duluth Exchange is still in effect.

About fifty grain brokers, members of the St. Louis Merchants' Exchange, held a meeting recently to protest against the wording of an invitation to a complimentary dinner to be given by Merchants' Exchange and other business organizations of St. Louis to the Municipal Bridge and Terminal Commission. The invitation stated, in effect, that the dinner was to celebrate the abolition of the bridge arbitrary, and the grain men declared they were still paying the arbitrary.

A petition has been circulated on the Chicago Board of Trade asking that the rule prohibiting members of the Milwaukee Exchange trading here be rescinded. The rule in question was passed several years ago, affecting exchanges where delivery of Chicago warehouse receipts were contemplated. It was urged on behalf of the petition that Milwaukee grain houses had sold their memberships here and were sending their business chiefly to Minneapolis and other exchanges to the detriment of local trade. It was also claimed that trading in ups and downs, or in Milwaukee puts and calls, was not concerned in any way by the petition, it not having any bearing in that direction.

BUENOS AIRES EXCHANGE.

The grain exchanges of Buenos Ayres will inaugurate on March 16 the system of selling grain and seeds for future delivery, as practiced in the chief grain markets of the United States. This important step has the unqualified approval of the government of Argentina, and was considered necessary for the protection of the farmer, in order that he will not be completely at the mercy of the elevator and milling combinations. It moreover enjoys not only the earnest support of the agricultural but also of the banking and mercantile interests of that rapidly developing country. In this connection the following letter from the crop expert, George M. Le Count, who recently returned from investigating conditions in the South American country, is interesting:

"I received a letter asking for information in regard to the price of wheat in the Argentine Republic. Now the absence of dealings for the purchase or sale of grain for future delivery in the Argentine Republic makes it necessary for the grain buyer to purchase his wheat on a much greater margin than he otherwise would if he could hedge his purchases. At the time I was making inquiries the grain buyer was getting 77 cents for the wheat and the farmer was receiving 55 cents, figuring American weights and money. To my mind a market where grain could be pur-

chased or sold for future delivery in the Argentine Republic would be of great benefit to the producers of that country, as they would then not be so completely at the mercy of the elevator and milling combinations."

CINCINNATI'S INSPECTION TANGLE SETTLED.

A compromise has been effected whereby the controversy over the chief grain inspectorship of the Cincinnati Chamber of Commerce has been settled satisfactorily. Homer Chrisman, who was chief inspector of grain and hay for many years, retired recently, when it developed that there were two candidates for the position, each with a strong following in the trade.

Ed Dennis, assistant inspector, and George Munson, the flour inspector, both considered themselves in line for the position and friends of each man took an interest in the matter. It finally was adjusted by consolidating the inspection departments and making Mr. Munson chief grain and flour inspector and Mr. Dennis chief hay inspector and assistant grain inspector, the salaries being the same.

The standing committees of the Chamber have been announced as follows:

Arbitration—Paris C. Brown, J. B. Clancey, F. F. Collins, S. P. Egan, August Ferger, Alfred Cowling, W. H. Harrison, Joseph D. Morten, C. Gordon Neff, Andrew Rohan, August B. Trum, Henry Vogel, James B. Wallace, John Woesten and A. Zecken-dorf.

Appeals—W. W. Blair, E. R. Buhrman, Robert C. Crowthers, Wm. H. Davis, James Dillaby, Lewis Eelsas, Theobald Fells, W. W. Granger, R. J. Kroger, H. F. Lackman, Charles S. Maguire, William F. Ray, George C. Schneider, A. B. Taylor and A. G. Wood.

Transportation—T. J. Moffett, chairman; H. Lee Early, James J. Heekin, Robert H. West and Samuel Bailey, Jr.

Inspection Committees—Grain: John H. Allen, chairman; H. Lee Early, Charles W. Schmidt, P. M. Gale and Wm. H. Kramer. Flour: Adam Smyrl, chairman; E. W. Gale, Andrew Nordmeyer, John B. Heid and Lyman Perin. Hay: Harry H. Hill, chairman; John E. Collins, Jr., Frank R. Maguire, William G. Stueve and Charles E. Van Leunen. Public Weighing: Henry W. Brown, chairman; H. Edward Richter, John DeMolet, Jr., Edward A. Fitzgerald and E. C. Skinner.

THE CORN OF 1907.

The food value of the immature corn crop of 1907 throughout the United States will probably be not more than half that of a normal yield of mature corn on the same acreage, says E. F. Diehl of Kosciusko County, Indiana, in the Indiana Farmer. This estimate of loss may appear high in some localities, but when we fully realize the acreage of total failure to produce grain on low lands and replanting, and the low average yield of the balance, and the very low feeding value of the bulk of the crop, which is constantly being reduced by corn spoiling in cribs, the full extent of which can only be known after the effects of warm spring weather become apparent, the above estimate of the food value of the 1907 corn crop will be found conservative.

The main cause for this shortage, both in yield and food value, may justly be attributed to the abnormal season. . . . In fact, the entire season was more favorable to plant growth than for seed development, including all farm crops, the maturing of which was fully two weeks late. . . . While the season of 1907 may not be duplicated in many years, yet it will be well to heed some of the lessons taught, and to emphasize these, will ask two questions: How much of the failure was due to planting seed of low vitality? How much was due to planting a variety too large, hence too late, for the locality? Seed of high vitality may be planted earlier, which is a big factor in growing a matured crop. Planting seed of unknown vitality is not only a careless but too often an expensive habit.

The tendency in recent years has been along the line of trying to grow a big yielding variety with too little regard to its fitness to the locality, with reference to its earliness to insure maturity even in a normal year. A large yielding variety usually means a large stalk requiring a long season to mature, and is all right where it fits the usual season; hence the rule should be to get a variety of corn (or, better still, develop it at home) that will grow the largest ear upon the smallest stalk that will mature in your locality. We in the north must be satisfied with a smaller stalk and ear than can be successfully grown in a more southern environment, but as a compensation we can plant the smaller varieties thicker and get more ears per acre, without greater draft upon soil fertility and moisture.

COURT DECISIONS

[Prepared especially for the "American Elevator and Grain Trade" by J. L. Rosenberger, LL. B., of the Chicago Bar.]

Taxation Law and "Average Capital" of Grain Dealers.

The Supreme Court of Nebraska holds (Central Granaries Co. vs. Lancaster County, 113 Northwestern Reporter, 199) that the classification of "every person, company or corporation engaged in the business of buying and selling grain for profit" as a "grain broker," for purposes of assessment, and providing for the assessment of the average capital of grain brokers, is not unconstitutional. The amount of capital invested in a business ordinarily is the whole amount of money invested and used in carrying on that business. The average capital of a grain dealer is defined by Sec. 66 of the Revenue Law to be the average amount which the total investment in the business of the grain dealer exceeds the tangible property which can be separately assessed at the time of assessment. The assessor, from the examination pointed out in the statute, must find what capital of the business there was, if any, from time to time during the tax year, not including in the computation the tangible property on hand and capable of assessment at the time of assessing, and the average or mean of the capital so found is to be assessed as property in addition to the tangible property.

Again, the court holds, at a later date, in the same case (Central Granaries Co. vs. Lancaster County, 113 Northwestern Reporter, 543), that the average capital of grain dealers, mentioned in Sec. 66 of the Revenue Law, is not the average of the total capital used in the business, but is the excess of such capital over the real estate and other tangible property which can be viewed by the assessor and "assessed separately." Average capital is not average purchases, nor average sales, and cannot be found by adding together the amount of purchases or the amount of sales during the year and dividing the sum by an arbitrary divisor. Average capital is the average of the amount of cash and all other property of every kind used in carrying on the business; and if there is an excess of this average of capital over the amount of real estate and other tangible property that can be viewed by the assessor, then such excess is to be added for assessment.

Validity and Application of Thrasher's Lien Statute

Section 737 of the Revised Code of Civil Procedure of South Dakota provides that, "Every person or persons owning or operating a thrashing machine shall have a lien from the date of thrashing upon all grain thrashed by him with such machine, for the value of the services so rendered in doing such thrashing; provided, that the provisions of this section shall not apply to the innocent purchasers of grain after the thrashing unless the said lien be filed within ten days."

It was argued in the case of Hahn vs. Sleepy Eye Milling Company, 112 Northwestern Reporter, 843, that this thrasher's lien law is unconstitutional because it deprives the grain buyer of property without due process of law and impairs the right to contract with reference to a legitimate subject. But the Supreme Court of South Dakota says that provisions of the statute similar upon principle have been construed to be authorized exceptions to the general rule protecting those who innocently purchase personal property without any notice of existing liens. Contrary to the contention of counsel for the Milling Company, the court is inclined to regard this section as a valid enactment by which the owner and operator of a thrashing machine is given a paramount lien on the grain from the date of the thrashing, which precludes purchasers in the open market having no other notice than the statute imparts, provided the lien is filed within ten days from the time the thrashing is completed.

The court says that where grain has been purchased in the open market prior to the expiration of the statutory time for filing the lien and without any knowledge of the plaintiff's claim for thrashing or that he had thrashed the grain, the North Dakota court has recently held that the grain itself was evidence that it might be subject to a lien for thrashing, and that there can be no innocent purchasers of grain during the thirty days allowed for filing the lien. In affirming a judgment for the conversion of grain, that court said: "The statute deprives the purchaser of nothing. He gets all that the owner has a right to sell to him. He knows as a matter of law that the owner cannot lawfully sell, except subject to

the lien of the thrasher, if it develops that he has any. The statute is notice to the purchaser of the right to a thrasher's lien on the grain up to thirty days from the thrashing. The defendant bought the grain with notice, which was as effectual as though the statement for a lien was on file. He acted at his peril, and the statute deprives him of no constitutional or vested right of property." (Mitchell vs. Elevator Co. (N. D.), 107 N. W. 1085.)

For rent due, or to become due, the statutes of some states give the landlord a lien upon all crops, attaching at the commencement of their growth, which need not be filed or recorded; and mere knowledge of the tenancy has been held sufficient notice of the lien to put a purchaser from the tenant upon inquiry and require him to answer in trover.

The Milling Company had actual knowledge that the grain of an embarrassed debtor had been recently thrashed by someone and was charged with knowledge of the statute giving the thrasher a lien superior to certain mortgages of which it had both actual and constructive notice and to pay which it applied all the proceeds of the grain in question delivered at its elevator. It was, therefore, in possession of facts which would suggest to a prudent person the necessity of making some inquiry relative to the thrasher's bill; and, having failed in this particular, it was not in the most favorable position to demand relief from the injurious operation of the statute or complain of the following entirely proper instruction of the court, to the giving of which neither objection nor exception appeared upon the record: "You will see by the language of this statute that however innocent the purchaser may be, if the lien is filed within ten days after the thrashing is done, the innocence of the purchaser is of no avail or protection to him."

Again, the court says that it must be conceded that in purchasing the grain of an insolvent debtor in total disregard of the lien with which it was charged, the Milling Company damaged the plaintiff to the full extent of what he had faithfully earned by putting such grain in a marketable condition, and after its conversion no good reason could be given in support of the claim that this action for compensatory damages was not maintainable. So the purchaser of grain raised by a tenant and subject to a landlord's lien of which the statute imparts the only notice is liable to such landlord in an action for damages to the extent of the value of the grain purchased.

SOME OPINIONS.

We are indebted to Secretary Wells of the Iowa Grain Dealers' Association for the following opinions:

Liability of a Public Weigher.—The following legal opinion is self-explanatory. Please note that, "The town, in maintaining scales, is exercising a governmental function" and is not liable for damages. This same absence of liability would also exist in government supervision of grain inspection and weighing, and would be a nuisance. The government would simply perform a governmental function. In our scale inspection work we have found numerous cases where "city scales" were in bad condition, giving incorrect weights. The case referred to in this opinion cost a grain dealer about \$200 last year.

The opinion:

"We have your letters of November 22 and December 6, with copy of ordinance, requesting our opinion on the following statement of facts: A town ordinance requires all grain sold within its limits to be weighed on a town scales, and the town has appointed a weighmaster, whose duty it is to keep the scales properly balanced and to weigh all commodities offered for that purpose. By reason of defective condition of the scales a grain buyer suffers loss. Can the grain buyer recover from the town?

"It is our opinion that the only remedy which the grain buyer has is against the weighmaster and his bondsmen. The town, in maintaining scales, is exercising a governmental function. A city or town is not liable for damages caused by its agents while performing a governmental function. Under the law of Iowa, the weighmaster would be liable."—Bailey & Stipp.

Interstate Commerce Commission Rule Providing for Refund of Overcharge, Because of Misrouting Without Authority of the Commission.—"I acknowledge receipt of your letter of February 21 relative to your claim against the Chicago, Burlington & Quincy Railroad Co. on account of alleged overcharges upon shipments of corn from Albany, Mo., to Waukegan, Ill., due to misrouting.

"For your information I quote a portion of Rule No. 57 of Tariff Circular 14-A, routing and misrouting of freight, as follows:

"If a carrier's agent misroutes a shipment and

thus causes extra expense to the shipper over and above the lawful charges via another available route of the class designated by shipper,—that is, all-rail or rail and water,—over which such agent had applicable rate which he could lawfully use, and responsibility for agent's error is admitted by the carrier, such carrier may, as to shipments moving subsequent to March 18, 1907, adjust the overcharge so caused by refunding to shipper the difference between the lawful charges via the route over which shipment moved and what would have been the lawful charges on same shipment at the same time via the cheaper available route of the class designated which could have been lawfully used."

"You will note from this that as to shipments moving subsequent to March 18, 1907, the carrier responsible for misrouting may adjust the overcharge without authority of the commission. On shipments prior to that date an order from the commission covering the overcharge due to misrouting is necessary."—Henry C. Adams, in charge of Statistics and Accounts.

ARBITRATION DECISION.

The following decision by the arbitration committee of the Grain Dealers' National Association is an appeal from the committee of the Grain Dealers Association of Oklahoma: In the case of the Garfield County Milling Co. against the Enid Wholesale Grain Co., and the cross petition of the Enid Wholesale Grain Co. against the Garfield County Milling Co.—Decision by the Grain Dealers' Association of Oklahoma and Indian Territories, Board of Arbitration, in session at Oklahoma City, Okla., on February 26, 1907:

This case having been submitted to the Board of Arbitration, and the papers filed of the parties in interest having been heard by the board, the board upon consideration find that the Garfield County Milling Co. claims of the Enid Wholesale Grain Co. balance of \$190.39, and the Enid Wholesale Grain Co. claims of the Garfield County Milling Co. a balance on account of weight dockage on grain, and on account of quality, \$53.43.

It appears from the claims of the parties in interest that the wheat in controversy was shipped New Orleans weights and grades and is accounted for on Little Rock weights and grades.

We are of the opinion, and so decide, that the shipper is entitled to New Orleans weights and grades, and not having received the same as per contract of sale, is entitled to a settlement upon his own sworn weights and grades. These sworn weights and grades show that the Garfield County Milling Co. is entitled to recover of the Enid Wholesale Grain Co. the difference in account amounting to \$236.65, less the customary shortage of one-half of one per cent, which amounts to \$42.26, which deducted from the original amount leaves the sum of \$190.39, which the Garfield County Milling Co. is entitled to recover from the Enid Wholesale Grain Co.

This decision precludes the recovery of the Enid Wholesale Grain Co. on its cross claim.

We, therefore, give judgment in favor of the Garfield County Milling Co. against the Enid Wholesale Grain Co. for the sum of \$190.39, and assess the cost of this arbitration against the Enid Wholesale Grain Co.

WHIT. M. GRANT,
GEO. G. SOHLBERG,
C. V. TOPPING,

Attest: C. F. Prouty, Secretary.

Decision of arbitration committee of the Grain Dealers' National Association in same case on appeal from the above decision:

In this case the plaintiff (Garfield County Milling Co.) and the defendant (Enid Wholesale Grain Co.) agree that the contracts covering settlement in controversy were for No. 2 hard wheat, New Orleans inspection and weights in final settlement.

The plaintiff contends that New Orleans grade and weights were not furnished, but that statements made by defendant were on Little Rock weights and inspection. The defendant admits that this is the case, but says that as grain was unloaded at Little Rock it is not possible to render statements on New Orleans weights. Inasmuch as the plaintiff, from the evidence, complied with his part of the contract, it is not incumbent on him to accept the Little Rock weight and grade, but he is entitled to settlement on sworn weights and grade as loaded into the cars at points of shipment.

The decision of the arbitration committee of the Grain Dealers' Association of Oklahoma and Indian Territory in favor of the plaintiff (Garfield County Milling Co.) is hereby affirmed.

H. S. GRIMES,
C. C. MILES,
E. M. WASMUTH,

March 11, 1908.

CROP REPORTS

Kentucky reports December condition as 96.

O. T. Griffiths of Vienna, S. D., writes that about the middle of February 15 per cent of the crop was still in the farmers' hands, exclusive of the seed.

A report from Portland, Ore., says that but 3,000,000 bushels of wheat of the 50,000,000 bushels raised in that state are all that remain to be marketed. A bumper crop is in prospect for this year.

Farming operations have been in full blast in parts of Washington for a month, and consequently spring work is well along. Winter wheat looks fine and the prospects are for a big yield and a larger acreage.

Taylor Miller, an elevator man in Salina, Kan., says there are Hessian fly eggs in some fields of wheat, but he does not fear any damage worth considering. The ground is moist and wheat is green and in fine condition.

Secretary Wells of the Iowa Grain Dealers' Association reports 68 per cent of the corn crop marketed by March 1, as compared with 52 per cent a year ago. About 85 per cent of the oats have been marketed, which is 10 per cent more than in 1907.

F. D. Coburn, secretary of the Kansas Board of Agriculture, has received reports from various parts of the state, all of which go to show wheat is looking fine. There has been plenty of rain and snow and the ground is in fine shape. The acreage is large.

S. W. Strong, secretary of the Illinois Grain Dealers' Association, writes under date of February 25 that 16 per cent of the oats, or 16,200,000 bushels, and 37 per cent of the corn crop, or 126,800,000 bushels, remain to be marketed. His estimate is compiled by 410 correspondents of the Association.

The March report from the crop reporting board of the United States Department of Agriculture, issued on the 10th of the present month, puts the total wheat reserves on March 1 at 148,721,000 bushels, or 23.5 per cent of the total yield of 634,087,000 bushels in 1907, compared to 206,644,000 bushels, or 28.1 per cent of the outturn of 735,261,000 bushels in 1906. The average farm reserves of the cereal on March 1 for the last ten years were given as 155,268,000 bushels.—Farm reserves of corn were 962,429,000 bushels, or 37.1 per cent of the 1907 yield of 2,592,416,000 bushels, compared to reserves of 1,298,000,000 bushels, or 44.3 per cent of the previous crop, on March 1, last year. The reserves of corn for the last ten years showed an average of 39.4 per cent of the total production. It was estimated that 18 per cent of the crop will be shipped from counties where produced, compared to 23.2 per cent a year ago, and a ten-year average of 19.7 per cent. The proportion of the 1907 yield that is merchantable was given at 77.7 per cent, against 89.5 per cent a year ago and 84.2 per cent for a ten-year average.—The holdings of oats back in first hands on March 1 were estimated at 267,476,000 bushels, or 35.5 per cent of the total production of 754,443,000 bushels raised in 1907, compared to 384,161,000 bushels, or 39.8 per cent of the 1906 yield of 964,904,500 bushels and a ten-year average of 311,625,000 bushels, or 37.3 per cent of the crops. It was estimated that 28 per cent of the crop will be shipped out from the producing counties, compared to 27.6 per cent a year ago and a ten-year average of 27.4 per cent.—The following tables give the farm reserves of wheat, corn and oats on March 1 for the last eight years:

Year.	CORN.	Percentage of Crop.
1908.....	962,429,000	37.1
1907.....	1,298,000,000	44.3
1906.....	1,108,000,000	40.9
1905.....	954,000,000	38.7
1904.....	839,000,000	37.4
1903.....	1,050,000,000	41.6
1902.....	443,000,000	29.1
1901.....	776,000,000	36.9
OATS.		
1908.....	267,476,000	35.5
1907.....	384,461,000	39.8
1906.....	379,805,000	39.8
1905.....	347,000,000	38.8
1904.....	273,700,000	34.9
1903.....	365,000,000	36.9
1902.....	225,463,000	30.6
1901.....	292,800,000	36.2

B. W. Snow, the crop expert, was out early with his March estimate showing the farm reserves of wheat at 23.3 per cent, or 138,000,000 bushels, against his estimate of 24.5 per cent, or 191,000,000 bushels, a year ago. Corn reserves were estimated

at 37 per cent, or 960,000,000 bushels, against 41.2 per cent, or 1,210,000,000 bushels, the previous year. Oats reserves were placed at 32.8 per cent, or 216,000,000 bushels. Last year Snow's estimate of oats reserves was 34.9 per cent, or 326,000,000 bushels.

During the last week of February farmers in Ohio showed discouragement over the prospects of the growing wheat crop. It has been looking bad because the winter has been unfavorable to growing wheat, there being but little snow. Instead there have been frequent freezes and snow.

CEREAL PRODUCTION OF EUROPE.

The marked shortage in the European grain harvest of 1907, contrasting sharply with the exceptional abundance of 1906, was undoubtedly a prime factor in raising the average farm price of wheat in the United States considerably above the level of 1906.

This condition illustrates forcibly the influence exerted by European agriculture on the welfare of American farmers, and lends timeliness to a bulletin just issued by the Department of Agriculture on the Cereal Production of Europe, by Frank R. Rutter, special European agent of the Bureau of Statistics. The bulletin gives complete official statistics, as far as they have been published, of the acreage, production, and average yield of the various grains in each country of Europe for the last twenty or twenty-five years.

Wheat and corn are the two grains that Europe imports largely from abroad. European production of rye, barley and oats is practically sufficient for national requirements.

The growing dependence on foreign countries for much of its grain supply is illustrated by the fact that during the last twenty years Europe has increased its average purchases of wheat more than 100,000,000 bushels, or about 80 per cent, and has doubled its annual purchases of corn.

It is only in northwestern Europe, comprising the countries of Teutonic stock, that the dependence on foreign agriculture is increasing. The wheat production of those countries has remained practically unchanged during the last twenty years, while their requirements have been steadily increasing, so that to-day they require from foreign sources 190,000,000 bushels a year more than they did twenty years ago.

In the countries of Latin origin, located in southwestern Europe, and including France, grain culture has just about kept pace with the increase of population.

In the more sparsely settled countries of eastern Europe wheat culture has made enormous strides since 1885. The average production of these countries during the five years 1901-1905 was 963,000,000 bushels of wheat, while during the five years 1886-1890 the annual production was only 634,000,000 bushels—a gain of more than half within twenty years.

Paradoxical as it may sound, it appears that the average yield per acre is highest in those countries where wheat culture is least generally practiced and where the acreage under that grain shows the smallest increase. The extension of the wheat area, on the contrary, is most marked where the average yield is lowest.

Thus the United Kingdom, Belgium, the Netherlands, and Denmark are at the same time the four countries in which the wheat acreage during the last twenty years has undergone the greatest reduction and the four countries which show the largest yield per acre. In each of these countries the acreage under wheat has fallen at least one-fifth in amount, while in each of them a yield of more than 30 bushels per acre has been obtained on an average during the last five years.

At the other end of the series stands European Russia, in which the increase in acreage during the twenty years was no less than 60 per cent, while the average yield per acre was little more than 10 bushels.

This apparent anomaly may be easily explained. A high average yield, such as is realized in northwestern Europe—about twice as high as the best average yield recorded for this country—presupposes the use of valuable land, justifying a large outlay in labor and fertilizers, as well as an abundant supply of good, but cheap, labor. These conditions of intensive culture, however, are much more favorable to the growth of crops other than grain, which give the greatest profit when raised on a large scale on new and comparatively cheap land.

It appears, for example, that the average crop obtained from an acre of potatoes in Germany is worth about \$40 and from an acre of sugar beets \$55, while wheat yields only \$29 and rye \$21 per acre. In France the acre value of hops

reaches \$153, of tobacco \$93, and of sugar beets \$47, against only \$21 per acre for wheat. In the Netherlands the gross return per acre of wheat, \$26, is far overshadowed by the returns from tobacco, \$213; potatoes, \$74; and sugar beets, \$52.

Wheat bread is increasing in use much faster than rye bread. For all Europe the annual per capita consumption of rye twenty years ago was a trifle under 3½ bushels. It is now just over 3½ bushels. During the same twenty years the wheat consumption increased from 4 to more than 4½ bushels a year for each inhabitant. Only Russia, Germany, the Netherlands, and Scandinavia now use rye more largely than wheat.

The rye acreage has been practically stationary. Twenty years ago Europe had 5,000,000 more acres under rye than wheat. To-day the wheat acreage is greater by 22,000,000 acres. In the East wheat is the great money crop, grown principally for sale abroad, while the Russian peasant contents himself with rye bread and the farmer in the Balkan States with corn "mamaliga."

COMMISSION

Fred Stockwell, recently with Milmine, Bodman & Co. of Chicago, has embarked in the grain brokerage business on his own account.

D. B. Granger, of the Union Hay & Grain Co., of Cincinnati, Ohio, started the last of February on a trip to Florida and Cuba.

Bert A. Boyd of Indianapolis sent his friends what he called "Just a Comic Valentine" on St. Valentine's Day. It proved to be a card with the calendar for 1908, and Mr. Boyd's picture gracing the top of the card.

Heil & Schuedler Co. of Superior, Wis., has been incorporated to carry on a general grain business. The capital stock is \$25,000 and the incorporators are Erbard Schuedler, Claude Z. Luse and Minnie Ducey.

Eugene Rang, who was expelled from the Chicago Board of Trade in April, 1905, for violating the rules, together with E. H. Prince, who was expelled at the same time, has been re-elected member of the Board by the unanimous vote of the directors.

Roos & Co., a Board of Trade firm of Chicago, early in March posted a notice requesting members having trades with them to close them out in the open market. Herbert Roos was at the head of the firm, although Leslie M. Schwabacher was a partner until recently.

The Prairie State Grain & Elevator Co., with main offices at 97 Board of Trade, Chicago, has succeeded the White & Rumsey Grain Co., having purchased Mr. Geo. A. White's interest. The company operates the transfer elevator at Kankakee, Ill., and officers are as follows: I. P. Rumsey, president; Frank M. Bunch, vice-president; H. A. Rumsey, secretary and treasurer.

The firm of Botsford Bros. & Co. has been formed at Detroit, Mich., to carry on a general business in beans, grain and hay. The members of the firm are Henry E. Botsford and William R. Botsford, who have been long and favorably known as grain merchants on the Detroit Board of Trade. Offices will be in rooms 1007, 1008 and 1009 of the Chamber of Commerce Building.

William B. Harrison has just retired from the grain business at St. Louis, where he has been engaged for forty-one years. He has retired to his old home at Petersburg, Va. Mr. Harrison was 67 years of age and was one of the oldest members of the Merchants' Exchange. A day or so prior to his departure about fifty of his friends gathered in his office and presented him with a gold watch and chain. Several speeches were made and his farewell was made an auspicious one.

The announcement is made that the Independent Grain & Lumber Co. of Mason City, Iowa, with a paid-up capital stock of \$250,000, has been incorporated to take over the Mason City branch of Nye-Schneider-Fowler Co. of Fremont, Neb. The purchase includes the Mason City line branch in its entirety, including elevators, lumber yards, real estate and all grain, lumber, merchandise and investments. The officers of the Independent Grain & Lumber Co. are Frank Fowler, president; Ray Nye, vice-president; William Fried, treasurer; James Bradley, assistant treasurer, and Albert J. Zingree, secretary and manager. The directors are Ray Nye, R. B. Schneider, William Fried and Frank Fowler of Fremont, Neb.; J. M. Jenks and James Bradley of Chicago, Ill., and Albert J. Zingree of Mason City, Iowa.

IN THE COURTS

C. E. Bullock, a grain dealer of Box Elder County, Utah, has filed a petition in the United States District Court to be declared a bankrupt. He placed his liabilities as \$2,304 and his assets as \$978.

J. H. Cressey & Co., grain dealers of Boston, Mass., made an assignment on February 18. Inability to realize on customers' notes is given as the cause. The liabilities are given as \$125,000 and the assets are said to be large.

The suit of John Davidson against the St. Anthony and Dakota Elevator Co., which will be heard by a court in Grand Forks, N. D., is one to settle rights of ownership of a car of wheat purchased by the latter concern. The plaintiff is one of two parties who claims the grain his.

A jury at Tiffin, Ohio, recently decided in favor of the defendant in a suit brought by Spangler, assignee of Isaac Stinebaugh, to recover \$11,000 from the grain firm of Sneath & Cunningham. The money is alleged to have been lost by Stinebaugh in playing the grain markets. It represented his entire fortune.

Benjamin A. Ham of the firm of Collins & Ham, hay and grain dealers at Boston, Mass., filed a voluntary petition in bankruptcy yesterday in the United States District Court, stating his partnership liabilities at \$22,984 and assets at \$2,000. Ham states that he has no individual liabilities or assets. The secured claims equal \$12,000, the unsecured \$9,958.

J. W. Spear of Marquette, Mich., was arrested on February 26 upon complaint of James Pendill, a business man, who alleged the defendant was operating a bucket-shop in violation of the state law making such a procedure a felony. Pendill has also instituted a civil suit to recover \$3,000 he claims to have lost through trading with the broker. Spear closed his office a week before his arrest and many of his customers threaten to proceed against him.

Kentucky is the first to issue an official report on the spring prospect for the growing crop. It makes the wheat condition 88. Last June condition was down to 82, but July was up to 90, and the crop turned out 11,500,000 bushels. Corn is their principal grain crop. Last December the condition was 96 by the Government report. State report made the condition now 88, compared with 1907 crop; acreage 87. Prospect of corn acreage 99 of last crop.

The Supreme Court at Kansas City, Mo., has reversed the decision of the Circuit Court in the case of Marion Jackson vs. the Gulf Elevator Co. of Kansas City, in which the plaintiff had been awarded a judgment of \$9,000. He lost a hand in a corn mill while working for the elevator company and sued for \$25,000. The Supreme Court reversed the judgment outright, without remanding, holding that Jackson by his own carelessness contributed to the accident.

Action was commenced by the Gribbin-Blair Grain Co. of Minneapolis, Minn., recently against Thomas Gribbin to collect \$1,587.87, which the company claims is due because of a balance of shortage of money furnished the defendant to buy grain. The company owns an elevator at Judd, N. D., and in the complaint it is claimed the agent was furnished \$47,122.75 with which to buy grain during the year ending August 1 last, a portion of which he has not accounted for.

The United States Supreme Court has affirmed the verdict of the Court of Claims, dismissing the case of Eli Bernays, a New York grain exporter, against the United States, involving the constitutionality of the provision of the war revenue act of 1898 fixing a stamp tax on foreign bills of exchange. While the law was in force Bernays paid something over \$6,000 in such taxes, and he sought to recover the money on the ground that the requirement was equivalent to a tax on exports, and therefore contrary to the Constitution. The opinion was delivered by Chief Justice Fuller.

McCarthy Bros., a Minneapolis grain commission firm, recently instituted suit in the District Court to recover \$14,359.25 from P. T. Hester & Co. of Coal Harbor, N. D. The suit arises from grain transactions between the Minneapolis firm and the McLean County Farmers' Elevator Company, a North Dakota corporation. The Minneapolis company asserts that P. T. Hester was instrumental in incorporating the Farmers' Elevator Co., and that he represented to the Minneapolis firm that the company was doing a legitimate business, when in reality the company was a "blind." It is asserted that McCarthy Bros. advanced \$114,793.03, supposing that the firm was dealing with the Farmers'

Elevator Co., and that of this amount \$14,799.03 has not been paid. Asserting that the Hester company misrepresented the business affairs of the elevator company, McCarthy Bros. seek to hold the P. T. Hester Co. for the debt.

In the case of J. H. Tobias against the I. R. Grain Co. of Latimer, Iowa, a jury in the District Court found for the plaintiff and a unique point of law has been settled. Last fall a tenant on Mr. Tobias' farm sold some grain to the above mentioned firm without his consent, as he held a lien on same for his rent. This was a sort of test case, Mr. Tobias suing the grain company for the payment of the grain, which amounted to about \$200, and the company contending that they had paid it to the tenant. The jury returned a verdict in favor of the plaintiff and awarded him damages to the extent of \$212.40.

Action was brought in the District Court at Minneapolis on March 2 by the Consolidated Elevator Co., which seeks to recover \$10,000 from the Weston Transit Co. for alleged damages done last fall to its dock and slip, at the elevators E, F and H, by the steamship W. M. Mills of North Tonawanda. It is alleged that the steamer, while moored at the dock, was moved, and in so doing the propeller caused such suction as to destroy the foundation of the dock and to remove the gravel and earth from under the dock into the dredged slip. It is claimed that for a distance of 100 feet or more the foundation was torn from the dock, and earth washed away. The damages are estimated at \$10,000 and judgment for that amount has been asked.

Judge Morris of Toledo has just settled an old case, in favor of Emery Thierwechter, a grain dealer of Oak Harbor, Ohio. Thierwechter employed a man named Grener to weigh the wheat that was taken in at the elevator, and to issue certificates which were cashed at Thierwechter's general store. It was claimed that John Johnson cashed in certificates to the amount of \$2,700 for grain that had never been delivered, and was indicted by a grand jury in Ottawa County. When the case came to trial Johnson was acquitted, but he alleged that an attorney for Thierwechter had persuaded him, prior to this time, to deed to Thierwechter his interest in a forty-acre farm and to give a chattel mortgage for \$72 on his personal property. It was to recover the value of this farm, which he claimed had been taken from him through fraud and threats, that he started the action against Thierwechter. Judge Morris, however, found that there was not enough evidence of duress to warrant the plaintiff's claim, hence the jury was directed to return a verdict for Thierwechter.

THE SOFT CORN PROPOSITION.

A majority of our farmers have to face the problem of how to most profitably dispose of a crop of soft corn. If it is very soft the ears will freeze up hard during the winter and next spring will either be rotten or soured, in either case not very valuable for feeding purposes.

Several years ago we had a little experience along this line. We fed the entire field to cattle in the form of shock corn. Before the hard freezes came on the bunch made as good gains upon the soft ears as they did upon the fully matured ones. But when the cold weather came the ears froze up and became solid and the steers ate only the fodder and the husks, leaving the ears, which could not be eaten. Of course the gains did not come. When the ears thawed out they had no food value.

Thus it seems as if feeding of some kind, and mighty quick at that, is the only means by which the growers of these crops can get any fair return for their summer's work. This early feeding of so great an acreage of corn will work good in two ways. First, the owners of these fields will get something, where otherwise their returns from the crop would be very small, and on the other hand, the fellow who has matured corn will be able to buy these half-fat steers at a reasonable price, and be able to finish them with profit and satisfaction to himself.—National Stockman

The March report from Michigan shows the wheat crop was well protected during February, and is now in a very promising condition. Regarding the report C. A. King & Co. of Toledo, Ohio, say: "December condition there was only 83, the lowest of any important winter wheat state. February year ago was unfavorable. March is regarded as the critical month there. They raised only 13,000,000 bushels in 1907, almost an average of late years. The amount left in farmers' hands is estimated at 5,500,000 bushels. Government report made it only 3,300,000 bushels. One hundred and one mills and elevators report no wheat purchased during February."

HAY AND STRAW

An alfalfa meal mill is to be erected at once at Clinton, Okla.

The Consumers' Hay and Grain Co. of Chicago has increased its capital from \$7,500 to \$10,000.

A new alfalfa mill will be erected just on the outskirts of Denver, Colo., at a cost of \$25,000.

A. B. Wade of New Jersey will enter into the hay business with A. G. Gardner at Mt. Gilead, Ohio.

The White Water Alfalfa Milling Co. of White Water, Kan., has been incorporated with a capital of \$10,000.

It is reported an alfalfa meal mill will be built at Kennewick, Wash., in the near future. About \$5,000 will be invested.

Ferdinand Dupre, a hay and grain dealer at Haverhill, Mass., has filed a volunteer petition in bankruptcy with no assets and liabilities of \$2,299.

A company from Fremont, Neb., has promised to build an alfalfa meal mill at Rapid City, S. D., providing the farmers guarantee a certain amount of alfalfa.

An alfalfa meal mill to cost about \$12,000 is being promoted at Hill City, Kan. The names of those interested are withheld by the Republican of that place.

Burglars rifled the hay and grain office of the H. Bruckman Company at Lawrence, Mass., one night during February, but obtained very little of importance.

The Board of Directors of the National Hay Association at a recent meeting decided to hold the next convention at Cedar Point, Ohio, on July 28, 29 and 30, 1908.

The new alfalfa meal plant at Kearney, Neb., is in operation and is shipping from five to six carloads of the product each day. It will soon be running day and night.

Fred Goddard, secretary of the Farmers' Elevator Co., at Minneapolis, Kan., recently called a meeting to consider the erection of an alfalfa meal mill in connection with the elevator.

Incorporation papers have been received by the American Alfalfa Milling Co. of Kansas City, Mo., which is capitalized at \$20,000, all paid in. F. E. Davenport, E. R. Martin and E. L. Martin are the incorporators.

Articles of incorporation have been filed by the Kingfisher Feed and Alfalfa Mill Co. of Kingfisher, Okla. The company is capitalized at \$5,000 and is controlled by E. M. Ware, G. E. Ware and L. M. Flickinger.

As the result of a suit started in the municipal courts the city fathers of Minneapolis, Minn., will introduce an ordinance covering the question of tare weight in connection with the sale of hay from the market there.

Prof. A. M. Ten Eyck is quoted as saying: "Cow-pea hay, saved in good condition, has a high feeding value, practically equal to alfalfa although it is usually not so well relished by stock. Apparently animals must become accustomed to it before they will eat it."

J. W. Robinson, a prominent live stock man near Wichita, Kan., will retire from that specific department of farming to engage in alfalfa milling and growing. He will cultivate 800 acres of land and will erect a large mill for grinding alfalfa. He will invest about \$100,000.

The Canfield Alfalfa Meal Mill at Boulder, Colo., was damaged by fire to the extent of \$1,000 on February 14, at Canfield, Colo. A spark from a passing engine caused the fire, but the prompt work of a bucket brigade prevented it from becoming a complete loss. The mill is owned by Wise Bros.

The Lybrand-Evans Mill and Feed Co. has been reincorporated at Oklahoma City, Okla., with a capital of \$15,000. W. E. Seaman and W. A. Lybrand of Oklahoma City and Lucius Lybrand of Terre Haute, Ind., are among those interested. It is proposed to manufacture alfalfa meal with a capacity of two carloads a day.

R. E. Frazier J. B. Adams and Frank Case of El Dorado, Kan., have secured a site on the Santa Fe Railway for their alfalfa mill. The contract has already been let for building the plant. It will be protected with corrugated steel. The capacity of the mill is intended to be 15 to 20 tons of alfalfa per day. Some 200 tons of alfalfa have already been bought. A new 100-horsepower engine for natural gas will furnish

the power. A storehouse of 1,000 tons will be built. It is intended to manufacture in this mill balanced "rations," which means a compound of ground alfalfa, kafir corn and Indian corn in proportions designed for the production of milk, of growth, or of fat, as desired.

A. W. Clark, of Clark Bros., hay and grain dealers at Cambridge, Mass., went to his office one morning recently and found that the walls had been covered with burlap and blankets, every crack stopped up, nine holes drilled in the safe and an assorted lot of dynamite lying around loose. Evidently the robbers had been frightened away before completing their work.

Hay receipts at this writing (March 10) are not heavy and the demand is limited to actual wants. Prices hold steady at the quotations, and shippers seem to be holding for a raise. This lets in just about enough to do the market without a surplus, and the market may be said to be unchanged. We look for steady prices as quoted. No change is looked for in the immediate future. There is no active demand for any grade or sort of hay, and with the moderate receipts no scarcity is looked for, although it is confidently expected that we will have a temporary demand during the next spell of fine weather. There will still be enough hay back to sell on the break, which will not show any more profit to shippers than present prices show. Shippers themselves will be the best judges of the situation after seedling. If the offerings are free in a given section, they will also be free in another, for while shipments have been heavy this year from all points, hay is still being freely offered from all points, while the demand from the South and for consumption where large improvements were in progress has eased off considerably. It was this unusual feature of the hay trade during the boom times that brought us the good prices for hay that prevailed the last three years.—Pittsburg Hay Reporter.

Freeman Bros. & Co., Chicago, report March 12: Timothy—Market is holding up very well in the face of improved weather conditions, for arrivals are but moderate and good qualities sell readily at satisfactory prices. The continuation of good weather does not necessarily mean enlarged receipts, for with the near approach of spring men and teams instinctively turn their attention to the fields. Plowing and planting will soon be the order of the day, and hay, regardless of market or prices, will be wholly neglected. Much hay awaits market at a higher level of prices, and should this be reached shipments of large quantities would quickly follow, with the result that the advance would promptly disappear and values forced to a lower level. Therefore, we argue that inasmuch as arrivals are below normal and market active and prices firm, with favorable outlook and prospects, that you ought now be exerting your best efforts to get your hay en route quickly. Prairie—Demand indifferent, even though fresh receipts are decidedly moderate, as also offerings. The surplus hay still awaiting market is exceptionally large, and the law of supply and demand is the natural control. The simple fact that the supply exceeds the demand is the situation as to wild hay in a nutshell. While we would like to hold out some encouragement for holders, yet fail to find any logical or sound reasons to justify, while on the other hand, there are many facts which lead to the conclusion that wild hay has little, if any, prospects for making or holding any marked advance in values. That this hay must be converted into money at some time is self-evident, and we believe that in spite of the drawbacks existing the present is as good a time as any. Straw—Market steady and quite active; sound, bright straw sells readily at quotations and trust warrants your shipping.

[From the Kansas Farmer.]

RULES FOR MEASURING HAY IN STACK.

The number of cubic feet allowed for a ton of alfalfa is usually 343, sometimes less, and even so low as 216 feet. Of prairie hay, settled, 422 feet is usually called a ton.

Most of the hay is put in "rieks" or stacks having rectangular base, put up with a stacker and generally to the height of sixteen feet. The usual method of measuring is to find the average length, the width on the ground and the average distance over. The contents are obtained by adding the width and "over," dividing by 4, multiplying the quotient by itself and this product by the length. For small, low ricks, subtract the width from the "over," divide by 2, multiply by the width and length.

There is no established rule for measuring round stacks. The following rule will approximate the contents of a stack of the ordinary

form: Find the circumference at or above the base or "bulge" at a height that will average the base from there to the ground, find the vertical height of the measured circumference from the ground and the slant height from the circumference to the top of the stack. Multiply the circumference by itself, divide by 100 and multiply by 8, then multiply the result by the height of the base plus one-third of the slant height of top. The hay in a round stack is necessarily less compact than in a rectangular stack, hence a greater number of feet should be allowed for a ton.

J. H. AUSTIN.

Alfalfa hay, when stacked sixty to ninety days: Subtract the width of stack from the "over," divide this by 2, multiply the quotient by the width and the length, then divide this by 422, which is the amount of $7\frac{1}{2}$ feet square (cube). This is also used for measuring cane in stack.

I. L. DIESEM.

Add the width of the overthrow, divide by 4, square the result, multiply by the length and divide by 512. This will give you the number of tons after the stack has settled for thirty days. The advantage of this rule is that the shape of the stack does not matter. By adding the average width to the average overthrow, you practically put the tape around the stack. Taking the fourth of this gives you one side of the square, which, multiplied by itself, gives the square feet in the end of the stack. This again multiplied by the length would, of course, give the number of cubic feet in the stack, 512 of which is the general measurement allowed to a ton here, thirty days after putting up; or 420 cubic feet of hay that has been up over six months. As you say, there is a great difference in hay. This rule is, I think, as fair as can be had for buyer and seller for the ordinary prairie hay, put up in good condition.

G. E. GODDARD.

The rules for measuring hay in the stack will vary according to the length of time the hay has been stacked and the kind and quality of the hay, and also according to the character of the stack. With alfalfa or prairie hay which has been stacked for thirty days it is usual to compute an eight-foot cube or 512 cubic feet as a ton. When the hay has been stacked five or six months, usually $7\frac{1}{2}$ -foot cube or 422 feet is calculated for a ton. In old stacks which have been stacked a year or more a 7-foot cube or 343 cubic feet is allowed for a ton.

There are different methods for measuring stacks, depending upon the shape of the stack and also upon its size. For a long stack or rick the usual method is to throw a line over the stack measuring the distance over the stack from the bottom on one side to the bottom on the other; add to this the average width of the stack, divide this sum by 4 (which equals one side of the square), and multiply the quotient by itself and this product by the length of the stack; this will give you the number of cubic feet in the stack, which may be divided by 512, 422 or 343 in order to find the number of tons. For small, low ricks the rule is to subtract the width from the "over," divide by 2, multiply by the width and multiply the product by the length, dividing the result by the number of cubic feet in a ton.

(For round stacks, see directions by J. H. Austin above.)

The rules given may also be used in measuring any kind of hay, cane, or Kafir fodder in the stack. However, for cane or Kafir fodder only approximate results can be secured by stack measurements, because the fodder is apt to vary very greatly in weight according to the moisture it contains.

A. M. TENNEY.

Reports from Parker and Johnson counties, Texas, show fine-looking crops, which are farther advanced than at this time in previous years.

Kelly Bros. & Mitchell, contractors for the new grain exchange at Winnipeg, have placed a \$50,000 lien against the structure, which is being completed.

John T. Rogers, aged 71 years, for several years closely associated with the grain business at Minneapolis, Minn., died suddenly on the morning of February 28. Mr. Rogers was identified with the T. B. Walker Co. during the last eight years. He was formerly a member of the Chamber of Commerce and one of the best known grain men of the city. He was for several years connected with the Peavey interests and represented that company at Kansas City for a time. He was born in London, England, in 1837. He came to Minneapolis twenty-five years ago and entered the wholesale meat business, which he gave up to go into grain. He is survived by a wife and three children. The interment took place at Carlinville, Ill., where Mr. Rogers formerly resided.

OBITUARY

Oscar Vosberg, a grain buyer at Bigelow, Mich., died quite suddenly recently of heart failure. He was a young man and his sudden death was a great shock to his many friends.

David L. Thompson, a grain dealer at Rochester, Minn., until failing health caused him to retire, died on February 28 at his home there. He is survived by his wife and two daughters.

Henry A. Stanley, aged 59 years, a hay, grain and feed dealer at Seattle, Wash., ended his own life on February 11. His little daughter returning from school found his body in the home, and in a note addressed to her he gave as the reason for his act that he was unwilling to begin life anew and attempt to recuperate his lost fortune. What money he had was willed to his daughter.

John Mansfield, aged 69 years, until two months ago a deputy state grain inspector, passed away at the Presbyterian Hospital in Chicago, Ill., on February 21, of Bright's disease. He was a native of Drununond, Ont., but moved to Chicago in 1870, when he became acquainted on the Chicago Board of Trade. He is survived by his wife and two sons, one of whom, R. Ivan Mansfield, is in the grain business at Minneapolis, Minn.

A. Fred Brown, 53 years of age, a former grain exporter at Boston, Mass., died on February 29 at Montreal, Que., where he had been taking special treatment. His wife, a son and daughter survive him. Mr. Brown was a member of the Boston Chamber of Commerce, and until he removed to Albany some months ago he was a member of the leading clubs of Boston. He was one of the largest grain exporters in New England. The funeral was held at Montreal.

Alfred Sharpe, aged 64 years, a prominent grain merchant with offices in the Chamber of Commerce at Buffalo, N. Y., died suddenly from heart disease on March 3. He was walking along a principal street when he fell to the walk and died soon after in an office where he had been taken. He was associated for over 15 years with Augustus F. Scheu while he was in the malting business. Mr. Scheu said that Mr. Sharpe had been engaged in the grain business in the Chamber of Commerce for three or four years. Mr. Sharpe was said to have very wealthy relatives.

Charles S. Partridge, senior member of the grain firm of Partridge Bros., established in 1884 at Manchester, N. H., shot himself on March 8, while a passenger on a train just entering his home town. The firm did a large business until about two years ago, when it failed through having indorsed the notes of another brother who was engaged in the clothing business. They resumed six months ago, but Charles M. Partridge never regained his former composure, and his suicide is attributed to discouragement. He leaves a widow, one son, four daughters, two sisters and four brothers in Manchester.

Highland H. Smith, aged 65 years, for the past sixteen years a prominent figure in the grain market at Westfield, Mass., succumbed to a stroke of apoplexy on February 25, after ten days of severe suffering. Mr. Smith was born in Guilford, Vt., March 15, 1842, and was the son of Rev. John L. Smith, a Methodist minister, and the young man lived in a number of towns where his father had pastores. He received his education in the public schools and also at the academy in Springfield, Vt. During the Civil War he enlisted in Co. C of the 4th Vermont Infantry, and served three years, and a portion of the time in special engineering work. At the close of the war Mr. Smith returned to Vermont and was married. For ten years he conducted a farm at Acworth, N. H., and then accepted the appointment as superintendent of the quarantinc station on Galloup's Island in Boston harbor, a position he held for a term of twelve years. It was sixteen years ago that he went to Westfield and entered the grain and grist mill business with W. L. Woodbury, under the name of Woodbury & Smith. Nine years ago the partnership was dissolved, and the business has since been conducted by Prentiss, Brooks & Co., with Mr. Smith as the Westfield manager. Mr. Smith having always enjoyed good health, his apoplexy was a great shock to his friends. Mr. Smith was a member of the Congregational Church in Acworth, N. H., and of Lyon Grand Army Post of Westfield. Besides a widow he leaves one son, two brothers and a sister.

THE CO-OPERATIVES

The Farmers' Elevator Co. of Albert City, Ia., paid a dividend of 10 per cent on business of 1907.

The Odell Farmers' Elevator Co., Odell, Neb., did a business of \$136,000 in 1907 and paid 6 per cent in dividends.

The Farmers' Elevator Co. of St. Peter, Minn., has applied for a receiver and given notice of an intention to dissolve the company.

The Harvard Co-operative Grain and Live Stock Co. of Harvard, Neb., handled, in 1907, 234,551 bushels of grain and made \$2,200.

The Stonington Farmers' Elevator at Willeys, Ill., has been sold to Twist Bros. of Rochester, who are now operating a line of about a dozen houses in Central Illinois.

The Farmers' Elevator Co. at Vesta, Minn., is in trouble, and recently adopted a resolution assessing all shareholders \$15 a share to pay debts and continue the business.

The Cerro Gordo Grain and Coal Co., Cerro Gordo, Ill., on a business in 1907 of 317,414 bushels of grain and 1,950 tons of soft and 281 tons of hard coal, representing about \$160,000 in money, made a profit of \$1,193.41. There are 300 shareholders in the company.

The Minnesota Farmers' Exchange has elected the following officers for the ensuing year: President, O. G. Major, Hope, N. D.; secretary and manager, J. H. Coates, Sauk Rapids; treasurer, Warren Archie, Finley, N. D. Directors chosen are: O. G. Major, J. H. Coates, Ed McGrath, St. Peter; H. C. Block, Main Prairie; C. J. Stine, Ashby; A. Anderson, Long Prairie.

The Saunemin Farmers' Elevator Co. has been having trouble with its finanees and with its shareholders, who have been hauling to a regular dealer. At a recent meeting of the shareholders it was voted to enforce the 1-cent penalty clause of the by-laws, and that has created more friction, as many of the shareholders insist it can't be enforced practically or by law and will defy the management.

An association of farmers, or independent buyers, are about to operate under lease the Kerr-Gifford grain sheds or warehouses, in Clearwater County, Wash. The warehouses that will come under the control of the farmers are located at various shipping points. Two of them are located at the Nez Perce tramway, one at Greer and one at Kamiah. Kerr-Gifford own other warehouses in the Clearwater section and it is possible that they will all eventually be controlled by the farmers' organization. That the farmers will control the grain situation with the warehouses under lease is conceded. The farmers on Nez Perce prairie raise more than 3,000,000 bushels of grain annually and east buyers are expected to enter the field in sharp competition as soon as control passes from the old companies.

INDEPENDENT GRAIN SHIPPERS' ASSOCIATION.

The Independent Grain Shippers' Association of North Dakota and Minnesota held a meeting at Fargo, on February 25, and appointed a committee to take charge of the organization of an "independent commission house" to handle the grain of members of the Association. The purpose is to organize with a capital of \$50,000, the stock to be subseribed by the grain men and independent elevators, with not less than 100 elevators seuring a portion of the stock.

The committee named consists of L. E. Foss, Maddock, president; E. Beissbarth, Brinsmade, secretary; L. Thompson, Hatton; L. Steenerson, Crookston; L. Noltmeier, Valley City; O. G. Major, Hope; G. K. Jordet, Finley; D. F. Siegfried, Sanborn; Jesse Leum, Mayville; Drager, Rugby and Messrs. Vannice and Hart. Besides seuring the neecessary stock subscriptions, the committee will act as a nominating committee for the election of officers of the new company.

FARMERS' GRAIN GROWERS' ASSOCIATION.

The Farmers' Grain Growers' Association of South Dakota was organized at a meeting held at Sioux Falls on March 5. The members of the farmers' elevator companies, who were largely in the majority, voted to exclude from the organization all firms and individuals not directly identified with a farmers' elevator company. This shut out the independent grain dealers, a number of whom were at the meeting anxious to ally themselves with the farmers rather than with the line

elevator companies; but the farmers seem to consider the independents their enemies as well as the line operators. This attitude may have been the result of a "spirited address" by E. G. Dunn, a part of whose business as a commission house drummer it seems to be to keep the rural populace stirred to a proper degree of "frenzied animosity" toward somebody.

The following officers were elected: President, G. M. Bowers, Loomis; first vice-president, W. H. Minzie, Geddes; second vice-president, J. A. Me-Govern, Wentworth; secretary, L. M. Doyle, Letcher; treasurer, T. O. Ellison, Vermillion; directors—E. H. Day, Clark; H. G. Solem, Baltie; Charles E. Boreen, Mitchell; O. B. Anderson, Corsica; I. S. Hengum, Hartford; W. P. Manning, Fairview; J. T. Beek, Henry.

The by-laws provide for committees on transportation, arbitration and investigation, grades, legislation, and for a claim agent.

IOWA FARMERS' ELEVATOR ASSOCIATION.

The annual meeting of the Iowa Farmers' Grain Dealers' Association was held at Fort Dodge on February 14 and 15. There was a large attendance of delegates, each local association being entitled to several delegates. The first session was devoted to the perfunctory but time-killing addresses of welcome and responses.

At the second session of the first day, Paul E. Stillman, member of the Iowa legislature and author of the Stillman anti-trust law, "whooped her up" against the state combine. He was followed by Senator J. H. Allen of Pocahontas, who lambasted the trusts.

At the evening session, S. H. Greeley talked on the "Public Warehouse Grain Monopoly." He was followed by Chas. D. Adkins, a member of the Illinois legislature, who talked on this kind of grain business. Geo. H. Maxwell of Washington, D. C., executive chairman of the Rural Settlements Association, spoke very briefly upon the co-operative movement, endorsing it in the warmest manner. Mr. Maxwell is editor of Maxwell's Talisman, whose purpose is to build up the resources of the country by the irrigation of desert lands, development of water power and more intensive farming and gardening. He believes the quarter-section farms of Iowa should be divided into much smaller tracts and gardened rather than farmed; that this is the way to keep the population here instead of letting the young people go off to Canada and other far-away points. He also supports earnestly the doctrine of the upbuilding of factories in the places where the raw materials are to be found.

On the second day Senator McCumber of Washington, D. C., talked about his bill, opening with complimentary remarks on the members of the U. S. Senate from Iowa, which led to a demonstration tending to indicate that Governor Cummins is more popular with this bunch of farmers than is Senator Dolliver.

The following officers were elected at this session: J. H. Brown, Rockwell, president; B. Hathaway, Kingsley, first vice-president; J. H. Hagans, Barnum, second vice-president; C. G. Messerole, secretary; Peter Gorman, Doherty, treasurer; board of directors—L. F. Fanning, Ruthven; Henry Stoughton, Dayton; W. S. Foley, Malvin; William McCanless, Sloan; J. J. Saffney, Wighman; Thomas McManus, Doherty; J. L. Wyley, Gilman.

All the spellbinders employed by a certain commission houses to organize farmers' elevator companies were present and "also spoke."

The following resolutions were adopted:

The Farmers' Grain Dealers' Association of Iowa, in convention assembled at Fort Dodge, with delegates in attendance from over two hundred farmers' elevator companies and representing directly over forty thousand and indirectly over one hundred thousand of the representative farmers of the state of Iowa, and with delegates also in attendance from North and South Dakota, Minnesota and Illinois, do hereby declare and resolve as follows:

Whereas, Agriculture is the foundation of the nation's wealth and prosperity, and there can be no enduring prosperity for those engaged in other vocations or branches of trade, commerce, manufactures or transportation unless it is based on the prosperity of the farmer; and

Whereas, In the past, the lack of organization and unity of effort, purpose and action among the farmers has often resulted in their being the prey of designing and unscrupulous methods by various combinations among those engaged in the marketing and distribution of the products of the farm; and

Whereas, There is no way for the farmers to protect themselves from such exploitation except by opposing organization by organization, and enforcing honest business methods by themselves

controlling, so far as possible, the channels through which their products reach the market; and

Whereas, The splendid success that has so far been achieved in the organized movement brought together by the affiliation of farmers' grain dealers' companies in this association and similar associations in other states, has demonstrated the benefits and value of such organization to the farmers; now, therefore, be it

Resolved (1), That we urge all farmers' grain dealers' companies already organized to join their respective state organizations without delay, and that farmers should co-operate to form such companies wherever none now exist, and should encourage such co-operation generally wherever it will advance their interests, and be guided by a spirit of fidelity and loyalty to this co-operative movement and to all producers from the soil in all matters relating to the marketing of their products.

(2). That legislation, both state and national, should be enacted which will put an end to gambling in the products of the farm and stop the speculative manipulation of the prices that the working people of this country must pay for their food.

(3). That we favor the inauguration of a system of federal grain inspection and grading of grain along the lines provided for in the McCumber bill, and we call upon the senators and representatives from the state of Iowa to bend every effort towards securing the enactment of such legislation by Congress at an early date.

(4). That we favor the immediate creation of a non-partisan tariff commission along the lines of the Beveridge bill in order that the foreign markets for American farm products may be protected and enlarged, but we believe that this bill should be amended so as to provide for one commissioner specially representing agriculture and one representing manufactures, instead of providing for one commissioner only for all producing interests.

(5). That the best interests of the people of Iowa and farmers' grain dealers' associations of our great state and other states demand that we lay aside our old political prejudices and affiliations and that we no more be enemies for any political reasons, but that we unite under the banner of co-operation, and that, as members of this Association, we will only support such men as will work for the ideas and principles of co-operation.

(6). That we most heartily thank the members of the Fort Dodge Commercial Club and the citizens and the press of Fort Dodge for the many courtesies which they have extended to the visiting delegates to this convention.

ILLINOIS FARMERS' ELEVATOR ASSOCIATION.

In opening the annual meeting of the Illinois Farmers' Grain Dealers' Association at Bloomington, on February 26, Thos. Lamb, Jr., of Bement, acting chairman, said in part: "The purpose of this Association is to improve the condition of the individual farmer. In all other elevator organizations the chief interest is only the money that can be made at the business.

"The farmer does not believe that the middleman has no place; but he must justify his position the same as the minister, the doctor or the lawyer. The farmers found a condition like this: You must market your grain at our price; we control the situation; the markets are ours. We could not stand for that; we must protect our interests by co-operation the same as others do. This Association represents the farmer with his fighting harness on. If I can understand the situation, this is the beginning of more extensive co-operation among farmers.

"In this country the consumer is not taken into account; he has been left to fight his battles single-handed; in every respect he has been at the mercy of the middleman. Go into the markets and you will find the profits of the middleman exorbitant.

"It has been left for the poor, down-trodden laborer of Europe to institute a co-operation which is the admiration of the world. Bring down the margins of the middleman to a reasonable basis and you will have a more comfortable living and a higher standard of life."

At the afternoon session Cleero J. Lindley, member of the legislature from Greenville, talked on the Deep Waterway project in Illinois. Mr. Lindley fell into the usual error of arguing on behalf of that improvement that the water power created by the construction of the canal would belong to the state; whereas, every informed lawyer ought to know that it would belong to the riparian owners, and not the state.

Messrs. W. B. Flemming of Bement and E. E. Rice of Latham and another gentleman, name unknown, discussed the practice of contracting of

grain for future delivery, all taking a stand against it.

Mr. Eckhart of the University of Illinois and Hon. B. F. Staymates of Clinton talked on soils.

Chas. Adkins of Bement urged the farmers to become politicians. Farmers, he said, "take no interest in practical politics, to their own loss. The rural mail and other things which make them closer students of affairs are working improvement in this particular, but they find themselves too busy when primary day comes to go to the polls, then they take it out grunting and kicking afterward. The farmer should know what his representatives are doing, and demand what he wants. Members of the legislature are very responsive to the wishes of their constituents, but farmers fail to stand for their rights, because they cannot see any immediate money in it."

At the evening session of the first day the editor of the Pantagraph made a short talk on the progress of agriculture, and was followed by S. H. Greeley of Chicago, who made an address on "The Chicago Public Warehouse Grain Monopoly." He said in part:

The greatest enemy of the grain producers of this country is revealed in the grain monopoly in Chicago, in which public facilities for the handling of grain are illegally possessed by private corporations whose object is to accumulate grain in storage and carry it for an indefinite period for the purpose of obtaining a tax from speculators, while this surplus so held is used as a club to depreciate values, force liquidations and otherwise seriously affect not only the producer, but legitimate speculation. The right to so take possession of these public facilities has already been tested in the courts and declared illegal, and yet they continue to operate, through the refusal of the proper authorities of the state to perform their duty to the public, and thus secure fair and open competition of the crops, as well as merchandising of the grain. The matter has been brought to the attention of Gov. Deneen, Attorney-General Stead and State's Attorney Healy in numerous written communications setting forth, not only that it is a violation of the civil law, but also of the criminal law, and it has been impossible for any honest effort by representative men to secure any official action which will bring these violators to justice.

The speaker advocated the joint organization of the various state farmers' co-operative associations into one general body, eliminating all alliance to old parties and pledging support only to those men who will demand that the rights of the people be protected from the present illegal possession of the warehouse facilities of the Chicago market.

The speaker discussed the methods by which the market is prostituted by illegal combinations and paid special attention to alliances with the transportation companies, acting as special privileges in conducting grain business, and while he admitted that the open rebate was largely discarded at the present time in merchandising of grain, privileges were exhausted by this monopoly in the way of elevator proprietorship and other railroad favoritism and still acted as a means to thwart competition and tend to depreciate agricultural products. He openly accused five Chicago grain firms with violating the law in operating public facilities for private profit and to the detriment of the producer and legitimate speculator.

The speaker advocated, in strong terms, a co-operative movement towards securing possession of the public facilities which have become usurped by private corporations, and his appeal for absolute dependence of all political parties and to get together as a determined unit in the interest of the farmers was a feature of the address.

The next speaker was Mr. George H. Maxwell of Washington, D. C., chairman Rural Settlements Association and editor of Maxwell's *Talisman*, who spoke on the subject, "The Foundations of Prosperity."

E. G. Dunn talked. He said he was educated for the law, but gave it up to fight the cause of the farmers' grain elevator. "Behind the movement is an earnest desire to make conditions better for the whole people. We need fighting men. You men must assert your independence. Back of this movement are the mothers who are bringing up a generation that is pointed to with pride."

John P. McGroarty, a member of the legislature from Chicago, next delivered a short but polished address on "Good Citizenship."

The last address of the evening was one of the best and was made by President Barnes, of the Wesleyan, who had for his subject "The Farmers' Best Asset." Dr. Barnes said that that asset is the boy, and the speaker in closing his able effort said: "Don't forget in your planning the farmers' best asset—the boy."

At the conclusion of the evening program the

delegates were served to sandwiches and coffee, complimentary of the Bloomington Business Men's Association.

Officers were elected on the second day as follows: President, Thomas Lamb, Jr., Bement; first vice-president, L. C. McCable, Lindlow; second vice-president, O. H. McKnight, Anchor; secretary, J. A. McCreery, Mason City; assistant secretary, John Miller, Galva; treasurer, J. B. Abbott, Mason City; directors, J. C. Walbourn, Wheaton, and Henry Schaefer, Illiopolis.

John D. Shanahan of Washington, D. C., addressed the convention on grain standardization and inspection. His paper was listened to with the closest attention.

Mr. Thomas McManus of Doughtery, Iowa, called the "Father of Co-operation" in Iowa, told of the "fight in Iowa."

C. G. Messerole of Gowrie, Iowa, read a paper on federal inspection of grain.

The resolutions adopted recited that delegates were in attendance from more than 170 farmer elevator companies and representing, directly, more than 30,000 farmers and, indirectly, more than 150,000 representative farmers of Illinois; and

Whereas, There can be no enduring prosperity for other vocations or branches of trade, manufacture or transportation unless it is based upon the prosperity of the farmer. In the past the lack of organization and unity of effect, purpose and action among the farmers has often resulted in their being the prey of designing and upstartful methods by various combinations among those engaged in the marketing and distribution of the products of the farm. There is no way for the farmer to protect himself, except by opposing organization and enforcing honest business methods, by themselves controlling, so far as possible, the channels through which their products reach the market. Splendid success has so far been achieved in the organized movement by the affiliation of farmers' grain dealers' companies, and similar associations in other states have demonstrated the benefits and value of such organization to the farmer; therefore be it

Resolved, That we urge all farmers' grain dealers' companies to join their respective state organizations without delay, and that farmers should form such companies where none now exist and co-operate with all farmers in market matters.

That we condemn the action of representatives who voted against or dodged the question on the reciprocal demurrage bill, and that we use our efforts to send men to our legislature who will stand up and be counted for measures that affect our interests.

The resolutions favored federal grain inspection, as provided for in the McCumber bill, and the immediate creation of a non-partisan tariff commission as provided in the Beveridge bill, in order that the foreign markets for American farm products may be protected and enlarged, with the amendment that one commissioner represent agriculture and one represent manufacturers.

They also earnestly endorsed the campaign for a deep waterway from the lakes to the gulf, and the passage of the Illinois amendment, that the state may be empowered to proceed with the deep waterway preparatory to the assured aid of the general government; and thanked Hon. James Wilson, Secretary of Agriculture, for recognizing the Association in sending such an able speaker as Mr. John D. Shanahan.

Resolved, That we pledge ourselves to use our best efforts to build up our state association and to advance the principles of co-operation.

During February grain rates from Northern Pacific common points in Montana to Chicago were reduced from 45 cents to 42½ cents. This is the result of a new agreement made by the Northern Pacific with the Burlington.

Otto Weiss of the Otto Weiss Alfalfa Stock Food Co. at Wichita, Kan., has asked the railways to restore his company the milling transit privilege and commodity rates accorded to shippers of corn and corn products to points in the United States, which was cut off in September last.

At a meeting of the Central Freight Traffic Association in Chicago recently action was taken sustaining the St. Louis Eastern lines in a new grain tariff. Effective April 15 the rate on corn and wheat shipments originating west of St. Louis, destined to the Atlantic seaboard, domestic, will be reduced 1½ cents. The rate on oats, flour and other grain products effective same date will be reduced one-half cent. The reduction agreed upon is a contention of St. Louis Eastern lines for some time past, and the effect will be to place St. Louis nearer on a parity with Chicago in respect of grain shipments from the West for the Atlantic seaboard, St. Louis having no direct lake route on traffic eastbound.

BARLEY AND MALT

The Idaho Falls Malting Co. of Idaho Falls, Mont., has secured a complete elevator outfit from the Weller Manufacturing Co. of Chicago, Ill.

Circulars setting forth the magnitude of the brewing, malting and distilling business of the United States and the menace thereto in the proposed prohibition enactments in various states were received in various parts of the country during the month.

During the last week of February Corbett Bros. of Dayton, Wash., shipped out 125,000 bushels of barley, principally to Albina and Portland, for exportation. This practically cleaned up the barley in that section. Work is now devoted to the shipping of 250 tons of barley out of Whetstone.

THE BARLEY SITUATION.

Emil C. Butz, one of the leading barley merchants on the Chicago Board of Trade, has this to say on the decline in barley:

The reason for the decline in barley is largely due to the fear on the part of the brewing interests of the increasing prohibition wave now said to be spreading over the country.

Early in the season, with conditions in a normal state, it hardly looked as if there would be barely enough to go round, and brewers were looking forward to cover their malt requirements, so that malt and barley were moving at a satisfactory rate. Since then, the politicians took hold of the prohibition movement and have worked it to further their interests and get themselves elected to office.

The result has been to shake the confidence of the brewers in the future, and now instead of brewing ahead and filling their cellars with finished goods as usual, they are all holding back and waiting to see what the future has in store for them, in their vicinity. In consequence, the demand for malt and barley has fallen off and prices have declined.

Should the spring elections continue to increase the prohibition districts, barley, no doubt, will sag still lower, and the farmer (the only real producer) will suffer further losses. On the other hand, should conditions remain as they are at present, we think the demand will again pick up; in fact, the moment the brewer can go ahead with a reasonable amount of assurance for the future, we look for a very active demand and a strong effort will be made all along the line to recover lost time and restore stocks to a normal basis, which will result in an active, in fact, a competitive demand that is sure to drive values up before it.

As I see it now the future values of barley are dependent largely on the actions next spring of the actual growers of the grain.

IMPORTS AND EXPORTS OF BARLEY AND MALT.

BARLEY.

	Bushels.	Value.
January, 1907	7	\$ 12
January, 1908	73,536	47,719
Seven mos. ending Jan., 1907..	35,738	12,936
Seven mos. ending Jan., 1908..	177,551	126,556

Exports—

January, 1907	851,629	476,870
January, 1908	554,184	451,196
Seven mos. ending Jan., 1907..	6,680,693	3,611,283
Seven mos. ending Jan., 1908..	3,588,319	2,650,675

BARLEY MALT.

	Bushels.	Value.
January, 1907	30,504	\$ 21,265
January, 1908	11,689	11,885
Seven mos. ending Jan., 1907..	213,662	144,963
Seven mos. ending Jan., 1908..	164,356	140,099

The New York Hay Exchange Association has started proceedings with the Interstate Commerce Commission against the Pennsylvania Railroad Co., the Baltimore & Ohio Railroad Co., the Long Island Railroad Co., the New York Central and Hudson River Railroad Co. and other carriers, alleging violations of the rate act. Complaint is made of the track storage rules of the railroads named. It is set forth that the defendants make charges ranging from \$2 to \$4 per car on shipments of hay, placed on track for delivery, such shipments being interstate in character. The complaint alleges that "said rule is unreasonable, unjust and unlawful, and that the charges imposed by the enforcement of the rule are confiscatory in character."

PERSONAL

R. W. Conner is now in charge of the Soldier (Kan.) Elevator.

Martin Pederson has closed the Minnesota Grain Co.'s elevator at Danvers, Minn., for the season.

Harry Dewey of Sparland has been placed in charge of his uncle's elevator at Camp Grove, Ill.

F. E. Fulton of Park River, N. D., has taken charge of the St. Anthony & Dakota Elevator at Hallock, Minn.

John A. Simonson of Booze, S. D., has gone to Alta, Iowa, where he is in charge of an elevator for E. A. Brown.

E. W. Brouillet of Red Lake Falls, Minn., is in charge of the Crookston Milling Co.'s Elevator at Crookston, Minn.

Theodore Albert of Hector, Minn., has gone to Aurelia, N. D., to take charge of the Schultz & Reinar Elevator there.

J. E. Josey, of the Josey-Miller Grain Co. of Beaumont, Texas, has been elected president of the Texas Bank and Trust Co.

R. E. Rogers has resigned as manager of the Alexander Elevator at Kellogg, Kan., and has been succeeded by Jim Smith of Oxford.

James Hance is again in charge of the Red Lake Falls Milling Co.'s Elevator at Red Lake Falls, Minn., succeeding E. W. Brouillet.

Andrew Karstad, formerly in charge of an elevator at Esmond, N. D., is now at his home in Henning, Minn., the elevator having closed.

J. E. Morris, formerly manager of the Northwestern Grain Co.'s Elevator at Fairmont, Minn., has been transferred to a station east of that place.

William Sheehan, manager of the Sheffield Milling Co.'s Elevator at Hartland, Minn., has closed the plant and been transferred to Minneapolis, Minn.

E. H. Silsbee, for several years manager of the Updike-Grant Co. at Crete, Neb., has been transferred to Surprise, Neb. He is succeeded by M. J. Wagey.

August Gabrielson has resigned as buyer for the Farmers' Elevator Co. at Kandiyohi, Minn., and has gone to Colorado. George Peterson has taken his position.

Leon St. Jacque, for the past year in charge of the Gribbon-Blair Elevator at Heaton, N. D., has gone to McClusky, where he will have charge of the Lyon Elevator.

John A. Currie, for fifteen years a member of the Minneapolis Chamber of Commerce, was adjudged insane and committed to the state hospital at Rochester, Minn.

David C. Schnell, a hay and grain dealer of Chicago, Ill., is being sued for \$25,000 by Robert Thiess, 16 years old, a newsboy, who was shot as a robber a year or so ago.

Miss Alice Peters, stenographer for the Ohio Hay and Grain Co. of Findlay, Ohio, recently won a \$3,000 motor truck through her ability in securing subscriptions for a magazine.

J. M. Kuykendall, formerly a grain dealer at Hallettsville, Texas, was recently found unconscious in a public street, with several knife wounds in his chest, neck and face.

Harry N. Welles of Elmwood, Ill., has gone to Lewistown, Mont., where he expects to take charge of a line of elevators now being built along a new railroad just opening in that country.

Frank Nesbit, local manager of the Torpin Grain Co. at Crowell, N. C., has gone to Tilden to take charge of the Torpin Elevator. R. Becker has taken charge of the elevator at Crowell.

Charles E. Buerge has closed the Lytle Elevator at Courtenay, N. D., and gone to his home in Wadena, Minn. It is rumored, also, that he was accompanied home by a bride, Miss Charlotte B. Lambie of Englevale.

Fred E. Norton, who has been a grain buyer at Crosby for the McGlenn Elevator Co. of Kenmare, N. D., has mysteriously disappeared, leaving a shortage of \$13,000. Investigation revealed the fact that the missing man had not only embezzled the company's funds but had committed the crime of forgery, having forged several checks and cashed them at a local bank in Crosby. A hurried trip was made to Kenmare, where a letter from Norton addressed to his employers was waiting, in which he made a statement that he had gone wrong and skipped the country. The letter was mailed from Mohall and it is presumed that he was headed

for Canada. At the man's farm it was learned that he had disposed of the land a few days previous to his cousin, who had been his room mate at Crosby, there being mortgage foreclosure proceedings on at the time the deal was made.

James A. Patten, of Bartlett, Frazier & Carrington, Chicago, has been on jury duty in the Municipal Court. He was excused six times one week because litigants did not care to have him on their juries. "They don't want to take me," said Mr. Patten. "As soon as they find out who I am they excuse me. The only reason that I can give for my being excused is that I am an employer of labor and a landlord."

H. P. Dahl, a grain buyer at Lake Preston, S. D., suffered a peculiar accident during February and narrowly escaped losing an eye. He was standing at the door of the elevator when he saw an icicle fall from the roof. He glanced up, and just then another fell, striking him in the face. Coming from such a height it struck him with such force as to stun him. When he recovered himself he was blinded with pain and found a nail embedded in his face just under one eye, piercing the flesh so deeply that it was with difficulty that he could pull it out. A surgeon was at once called and it is believed he will be able to save the sight of the eye.

NEW BOOKS.

The National Hay Association has published in the usual pamphlet form the proceedings of the annual convention at Niagara Falls on July 15-18, 1907.

"First Lessons in Dairying," by Herbert E. Van Norman, professor of Dairy Husbandry, School of Agriculture, Pennsylvania State College, is a handbook setting forth the underlying principles of dairying for the student beginner in the laboratory and on the farm. It is published by the Orange Judd Co., New York, and is sold for 50 cents net. The book has been written from a practical point of view and is designed primarily as a practical guide to successful dairying, an elementary text book for colleges and for use especially in short-course classes. It embodies underlying principles involved in the handling of milk and the manufacture of butter on the farm, and being written in a simple way, free from technical terms, is easily understood by the average farm boy. It covers the relationship of bacteriology and chemistry, the foundation sciences of modern dairying, besides treating fully ordinary conditions found on the farm and in the dairy. It is fully illustrated and is just the thing for the everyday dairyman and should be in the hands of every farmer.

"First Principles of Soil Fertility" is a new work by Alfred Vivian, professor of Agricultural Chemistry in the College of Agriculture of the Ohio State University. It treats of a subject of vital importance to the farmer. The very evident decrease in the fertility of American soils which have been under cultivation for a number of years, combined with the increased competition and the advanced price of labor, have convinced the intelligent farmer that the agriculture of the future must be based upon more rational practices than those which have been followed in the past, and this advance practice begins with a study of soils. Professor Vivian's experience as a teacher in the short winter courses has admirably fitted him to present this matter in a popular style. It is pre-eminently a "First Book" and will be found especially valuable to those who desire an introduction to the subject, and who intend to do subsequent reading. It is just the book for high schools, reading circles, grange courses and traveling and other libraries, or for the farmer who is compelled to do all his reading at home. It is illustrated and sells for \$1. Published by the Orange Judd Co., New York.

"Farm Machinery and Farm Motors," by J. B. Davidson, professor of Agricultural Engineering, Iowa State College, and L. W. Chase, associate professor of Farm Mechanics, University of Nebraska, is the first American book published on the subject of farm machinery since that written by J. J. Thomas in 1867. This was before the development of many of the more important farm machines and the general application of power to the work of the farm. Modern farm machinery is indispensable in present-day farming operations, and a practical book like "Farm Machinery and Farm Motors" will fill a much felt need. The book has been written from lectures used by the authors before their classes for several years and which were prepared from practical experience and a thorough review of the literature pertaining to the subject. Although written primarily as a text book, it is equally useful for the practical farmer. It is profusely illustrated, has 520 pages, is bound in cloth and sells for \$2. Orange Judd Co., 439-441 Lafayette Street, New York, are the publishers.

The above books will be mailed from this office on receipt of the prices named.

FIRES--CASUALTIES

A grain warehouse at Newington, Conn., occupied by Parker Holt, who had stored a large quantity of grain, was burned down during February. Mr. Holt carried no insurance.

The Homestead Elevator at Columbus, N. D., was destroyed by fire on February 27, and 18,000 bushels of grain were destroyed, besides 120 tons of coal. The loss is estimated at \$25,000.

Dowler Bros.' elevator at Mandale, Ohio, containing a large quantity of grain, was destroyed by fire on February 25. The origin of the fire has not been ascertained. It has not been decided whether the elevator will be rebuilt or not.

The Parks Elevator at Sullivan, Ill., was burned during February, together with 3,000 bushels of corn, two cars of oats and one of wheat. The grain was insured. It is believed the fire started from the sparks of a passing locomotive.

J. H. Pope's grain elevator at Ayr, Neb., burned down during the night of February 27 and caused a loss of \$5,000. The plant had a capacity of 18,000 bushels and was leased and occupied by Reader & Son as an annex to their own elevator.

The first lightning damage of the season occurred on March 1, when a smokestack belonging to the Central Grain Elevator Co.'s plant at Beech Grove, Ind., was struck. The Millers' National Insurance Co. reports the first lightning damage last year was on March 30.

A grain elevator at Maroa, near Decatur, Ill., belonging to the Maroa Elevator Co., was destroyed by fire on the morning of February 29. The loss is estimated at \$30,000, with insurance for \$20,500. The cause has not been ascertained, but it originated in the engine room.

Keel & Sons, grain dealers of Gainesville, Texas, report the burning of their elevator at Lindsay, Okla., the morning of March 6. The loss on the elevator and machinery was about \$10,000, half covered by insurance. A large quantity of grain was burned, but this was insured.

H. G. Dehring's elevator at Curtice, Ohio, was destroyed by fire at noon on February 28, entailing a loss of \$5,000, partly covered by insurance. The fire started while the men were at dinner. It originated over the gas engine room. The elevator was well filled with grain, so the loss is heavy for an elevator of that size.

An elevator belonging to Ben Lemke, near Cando, N. D., was burned in February, together with 3,500 bushels of flax and other grain, as well as some expensive machinery. The elevator was valued at \$4,000 and was insured for half, while the flax was fully covered by insurance. Although the origin of the blaze is unknown, it is believed an overheated bearing was responsible.

Lightning caused the destruction of two elevators belonging to a Mr. Smith at Whiting, Iowa, early in March. There were about 20,000 bushels of grain in the buildings and the loss therefore approximated \$15,000. The fire occurred during a heavy rainstorm or the destruction to property might have been serious. The elevators formerly were owned by G. H. Elliott & Son and were insured.

Fire in the Hardy Grain Co.'s corn warehouse and feed mill at Union City, Tenn., the evening of February 27 consumed the upper story of the building and did a great deal of damage to the machinery. Considerable grain was lost. The fire started near the engine room and, it being a metal building, the fire department labored under disadvantages. It is estimated the loss was \$20,000, covered by insurance.

The George Terwilliger Elevator at Canton, S. D., was burned down on February 17, at a loss of \$10,000. It had been idle since last fall. Two freight cars were also consumed. Just before the fire a terrific explosion took place, throwing debris from seventy-five to one hundred feet in the air. It was of such great power that a hole two feet deep was blown in the frozen ground. The authorities are investigating and a determined effort will be made to run down the firebugs.

A \$50,000 fire is reported as having occurred the night of March 5, when the warehouse and packing rooms of the L. L. Olds Seed Co. were destroyed at Clinton, Wis. The fire broke out shortly after 6 o'clock on the second floor in the women's cloak room. The building was a three-story frame structure and held in the neighborhood of \$50,000 worth of seeds, including garden and field varieties, and also 16,000 bushels of potatoes. The loss is partly covered by insurance. Temporary headquarters were opened immediately.

LATE PATENTS

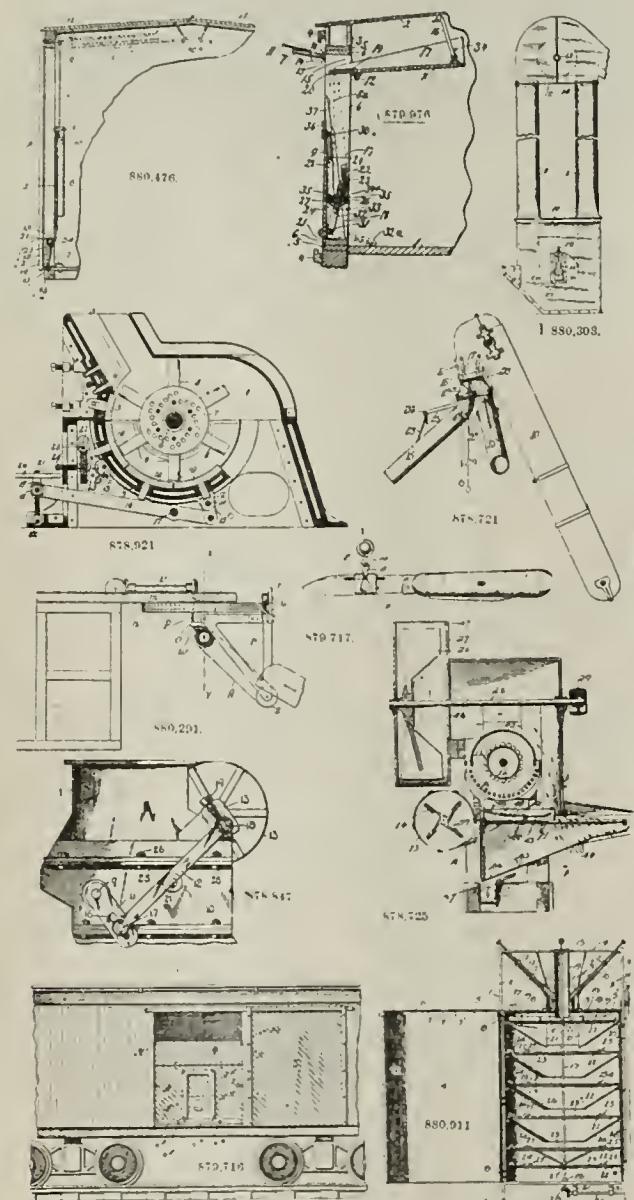
Issued on February 11, 1908.

Endless Conveyor Belt.—Isaac F. Manning, Ottawa, Ill. Filed May 27, 1907. No. 878,650.

Conveying Apparatus.—John H. Gilman, Ottawa, Ill., assignor to King & Hamilton Co., Ottawa, Ill. Filed April 12, 1907. No. 878,721. See cut.

Cleaning Apparatus for Corn Shellers.—Frank Hall, Fairbury, Ill., assignor to King & Hamilton Co., Ottawa, Ill. Filed May 28, 1906. No. 878,725. See cut.

Feed Regulator.—Milton F. Williams, St. Louis, Mo., assignor to Williams Patent Crusher & Pulverizer Co., St. Louis, Mo. Filed July 15, 1907. No. 878,847. See cut.



Crusher and Pulverizer.—Milton F. Williams, St. Louis, Mo., assignor to Williams Patent Crusher & Pulverizer Co., St. Louis, Mo. Filed March 18, 1907. No. 878,921. See cut.

Issued on February 18, 1908.

Grain Car and Door Therefor.—Henry Alsop, Chicago, Ill. Filed January 14, 1907. No. 879,716. See cut.

Seed Corn Magnifier.—George Anderson, Wakefield, Neb. Filed June 29, 1907. No. 879,717. See cut.

Issued on February 25, 1908.

Grain Car Door.—Calvin Moore, Becker, Minn. Filed November 26, 1906. No. 879,976. See cut.

Swinging Feed Elevator for Maize Shellers and Thrashing Machines.—Thomas J. Gee, Chatteris, England. Filed October 4, 1907. No. 880,291. See cut.

Bucket Elevator.—Frederick A. Hetherington, Indianapolis, Ind. Filed April 26, 1907. No. 880,303. See cut.

Distributing and Conveying Belt.—Thomas J. Carter, Temple, Okla. Filed August 24, 1907. No. 880,356.

Grain Door for Box Cars.—Jacob S. Bender, Kansas City, Mo. Filed December 8, 1906. No. 880,476. See cut.

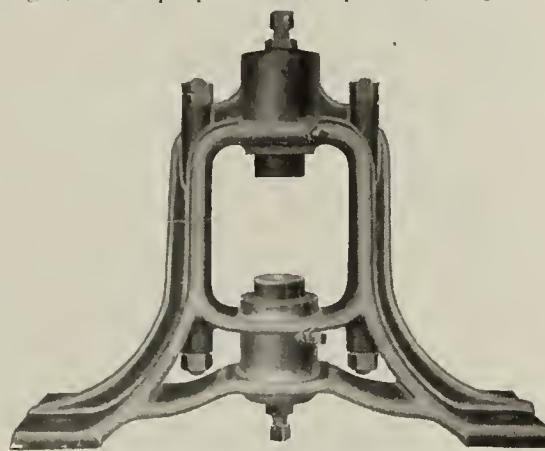
Issued on March 3, 1908.

Machine for Grading and Separating Grain.—William W. Patterson, Fairview, Okla. Filed May 22, 1907. No. 880,911. See cut.

Determinations made last year on upwards of 50 different varieties of oats grown at the Montana Experiment Station revealed the fact that the average proportion of hull in Montana-grown oats was 24 per cent. The variety having the greatest amount of hull showed 29 per cent, or 1 per cent lower than the average American-grown oats. The variety having the lower percentage showed slightly less than 22 per cent hull and indicated a very highly quality in oats.

THE VITALS OF AN ATTRITION MILL.

The illustration shown below is the Pedestal used on the full line of Scientific Attrition Mills. This pedestal is a most important—yes, vital—part. Note its manifest strength, liberal proportions and pleasing design.



This feature should appeal to all discriminating buyers of Attrition Mills, as it combines every desirable and necessary feature. The feet of this pedestal are machined, as is also the joint where the top yoke joins the lower section. The ends of the adjustable plugs at the top and bottom are concave and fit over a corresponding convex surface on the bearings. These Pedestal plugs are held in perfect alignment, assuring the bearing being retained in proper adjustment.

Some builders of attrition mills will tell you that their machines will grind anything—agreed, but will they do it right? You want a mill to do your work as you want it done. If you get a Scientific, it will be built specially for you to do your work right. The guarantee that means much to you goes with it.

THE FOOS MFG. CO., SPRINGFIELD, OHIO.
(Builders of Attrition Mills since 1878.)—A.D.

For Sale

Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.

ELEVATORS AND MILLS

FOR SALE ON ACCOUNT OF ILL HEALTH.

A lumber, feed and coal business. A good opportunity for right party. Apply to owner, H. F. BATTERMAN & CO., Palatine, Ill.

FOR SALE.

Grain and live stock business for sale. Good paying business for the man who understands both lines of trade. Address

ARTHUR BOYLE, Plainview, Ill.

FOR SALE.

Well-equipped, up-to-date grain and bean elevator in good farming community. Look it over and if price does not suit, make us an offer. Best of reasons for selling.

J. F. CARTWRIGHT CO., Davison, Mich.

LINE OF ELEVATORS FOR RENT.

We have for rent on favorable terms a well-located line of country elevators in Illinois; gasoline engine equipment; good territory and good shipping facilities. Address

H. J., care "American Elevator and Grain Trade," Chicago.

FOR SALE.

Elevators in Illinois and Indiana that handle from 150,000 bushels to 300,000 bushels annually. Good locations. Prices very reasonable. Address JAMES M. MAGUIRE, Campus, Ill.

GOOD ELEVATOR PROPERTIES.

If you want to purchase a large or small mill, or a good elevator, in Kansas, Oklahoma or Nebraska, write me, as I have a list of good properties for sale.

C. E. R. WINTHROP, Room 404 Sedgwick Block, Wichita, Kan.

FOR SALE.

Elevator and lucrative business. Elevator capacity, 75,000 bushels; all latest improvements, with electric power, etc.; large grain warehouse; large fireproof brick hemp house; coal and grain business. Situated in the best of the Blue Grass region, Georgetown, Scott County, Ky. Only elevator in county; annual wheat production, 400,000 bushels. Georgetown has a population of 8,000. Three railroads in our yards. For particulars address

OFFUTT & BLACKBURN, Georgetown, Ky.

MACHINERY

FOR SALE.

One 40-horsepower gasoline engine, in good condition. Address

W. H. VANDER HAYDEN, Ionia, Mich.

ENGINES FOR SALE.

Gasoline engines for sale, 5, 7, 10 and 20 horsepower.

TEMPLE PUMP CO., 15th Place, Chicago, Ill.

FOR SALE.

One No. 37 Howes Oat Clipper, good as new. Address

THE ADY & CROWE MERCANTILE CO., Denver, Colo.

FOR SALE.

Two U. S. Moisture Testers (Greiner make with glass flasks) for gas; slightly used, but good as new, \$25 each.

HESS WARMING & VENTILATING CO., 909 Tacoma Bldg., Chicago, Ill.

FOR SALE.

One No. 7 Monitor Oat Clipper. Also feed crushers and grinders, gas and gasoline engines, boilers and elevator supplies of all kinds.

A. VAN CAMP, Decatur, Ind.

MONEY IN YOUR POCKET.

If you want to change that second-hand machine into money advertise it in this department. Or if you have a grain elevator to sell or rent, or wish to buy, make your wants known through these columns.

FOR SALE.

Gasoline engines; one 54-horse Fairbanks-Morse; one 28, one 16, one 12, 2, 8 and 25 horsepower Sterling Charter. All sizes and prices in small sizes.

A. H. McDONALD, 38 W. Randolph St., Chicago.

FOR SALE.

Three gasoline engines. Three Fairbanks Scales. One seed cleaner. One power freight elevator. One scouring machine.

One Monitor Grain and Seed Cleaner. Some pulleys, shafting, collars, hangers and belting, practically as good as new. Write for particulars and prices.

JOHNSON & SON, Goshen, Ind.

SCALES

SCALES FOR SALE.

Scales for elevators, mills, or for hay, grain or stock; new or second-hand at lowest prices. Lists free.

CHICAGO SCALE CO., 299 Jackson Boulevard, Chicago, Ill.

Miscellaneous Notices

[Copy for notices under this head should reach us by the 12th of the month to insure insertion in the issue for that month.]

ELEVATORS WANTED

WANTED.

Elevator or mill and elevator for good improved Illinois or Iowa farm. Address IOWA, Box 1, care "American Elevator and Grain Trade." Chicago, Ill.

GRAIN AND SEEDS

SEED CORN, OATS AND TIMOTHY.

We have for sale Yellow Dent and America's Pride seed corn at \$1.50 bushel ear, or \$1.25 shelled; also the big yellow oats at 60 cents per bushel; recleaned timothy seed, \$2 per bushel. Sacks included at above prices. We sell at wholesale only.

YOST & SHERICK, Libertyville, Iowa.

FIELD SEEDS

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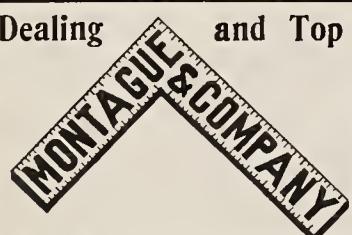
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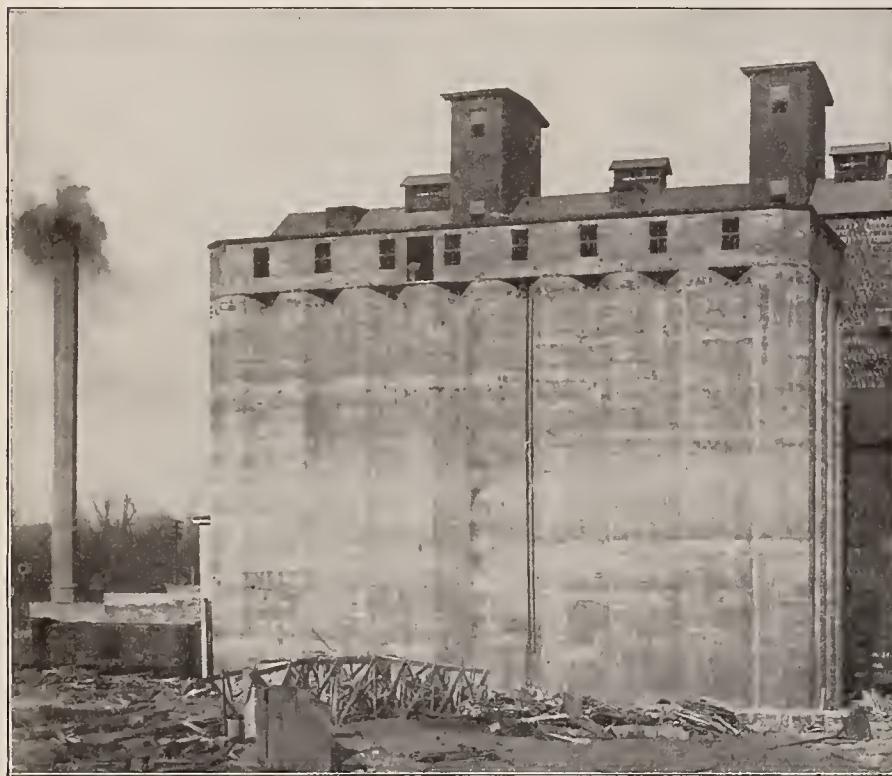
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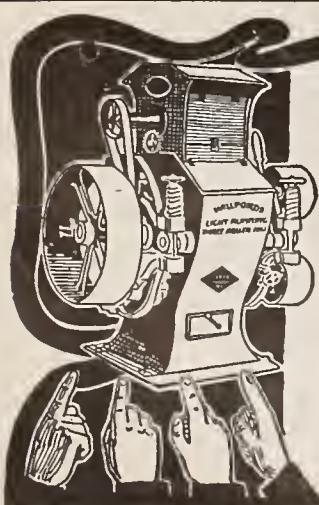
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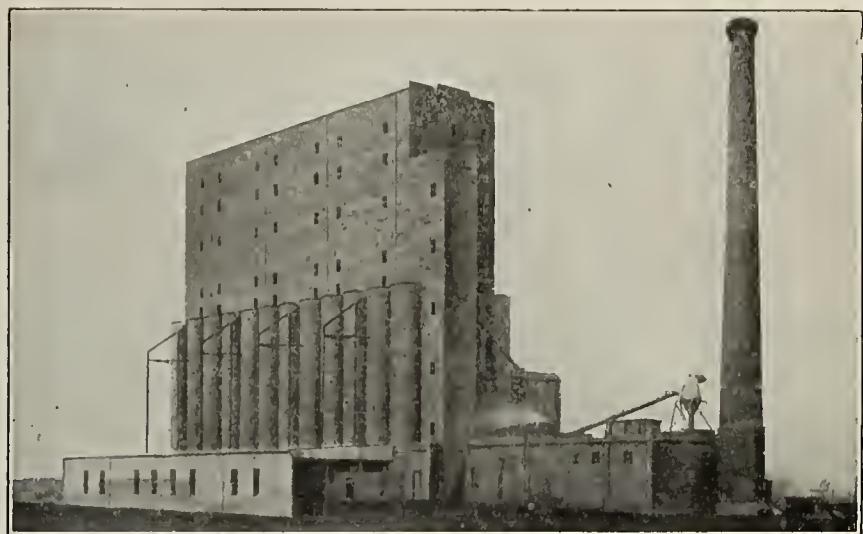
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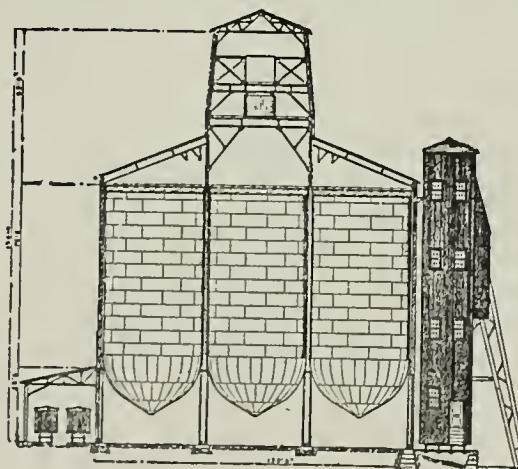
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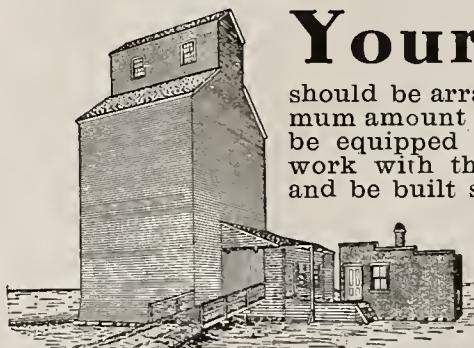
L. BUEGE

THE GRAIN ELEVATOR BUILDER

Who Builds Right Kind of Elevators at the Right Kind of Price
322 Fourth Ave., South, MINNEAPOLIS, MINN.

YOUNGLOVE builds Elevators complete, or will furnish equipment for same. Write us. Prompt Service.

YOUNGLOVE CONSTRUCTION CO., 315 Pearl St., Sioux City, Iowa



Your Elevator

should be arranged so as to require the minimum amount of help in its operation, should be equipped to do the maximum amount of work with the minimum amount of power, and be built strong enough to hold all grain put into it. This is the kind of elevator IBBERSON builds. Want one? Then write

T. E. IBBERSON
Elevator Builder and Contractor,
310 Corn Exchange, Minneapolis, Minn.

STORAGE TANKS AND STEEL ELEVATORS WITH FULL EQUIPMENTS

Give us the opportunity to submit you plans and estimates. We can please you. Ask us for Catalogue "A" Twin City Corliss Engine and Catalogue "F" Elevator and Power Transmitting Machinery.

Minneapolis Steel & Machinery Co.
MINNEAPOLIS, MINN.



STORAGE TANKS, 52,000 BUSHELS CAPACITY EACH

Millers' National
Insurance Company
205 La Salle St.
CHICAGO, - - ILL.
CHARTERED 1865

Insurance with a maximum of security at a minimum of cost for ELEVATORS, WAREHOUSES and CONTENTS, on the Mutual Plan.

Five-Year Policies (or short term policies on grain, if required).

Semi-Annual Assessments, costing about one-half Stock Company rates.

No conflagration hazard.

Gross Assets, - - \$4,937,625.96
Net Cash Surplus - 883,105.27

The Grain Shippers Mutual Fire Insurance Association

WRITES

Fire, Lightning and Tornado Insurance on Grain Elevators

Risks in force, \$7,000,000.00
Losses paid to date, \$335,000.00

IF INTERESTED, ADDRESS
F. D. BABCOCK, Secretary
Ida Grove, Iowa

CLEVELAND ELEVATOR
BUCKET CO., Manufacturers of the
"FULLER" PATENT STEEL
ELEVATOR BUCKETS



Suitable for Mills, Elevators, Ear Corn, Cobs, Clay, Ores, Broken Stone, Coal, Sand and other extra heavy substances. General Office and Works: 225 St. Clair St., Cleveland, O., U.S.A.

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HANDLES BARRELS, BOXES,
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ELEVATING CAPACITY:
600 PACKAGES HOURLY.

Equipped with special inclined unloading and traveling fingers.
If interested ask for Catalogue 72A.
FREE.

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investments are offered to produce greater returns.

The country grain dealer does not buy securities, but needs to reduce expenses. He therefore looks to the



to handle his fire insurance on the mutual plan. Reliable contracts with complete policy form descriptions are made on the best constructed and most profitable elevators of the country. Address

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ASSOCIATION OF ILLINOIS
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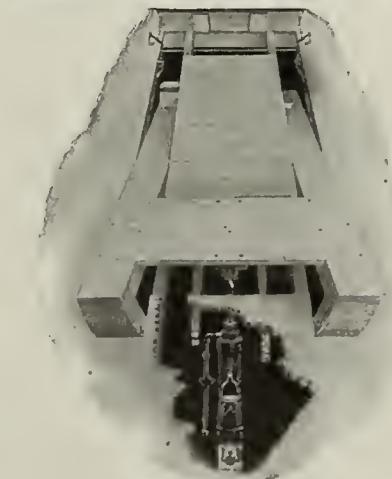
Wrote... \$5,348,463.75 insurance last year
Paid . . . \$110,724.14 in losses last year
Added . . . \$24,230.30 to surplus last year
Assessed only 45% of basis rates last year

If you want the best of insurance at the lowest cost, write to us.

Insurance in force, \$10,158,139.43
Face value of notes 1,451,877.89
Cash assets 300,148.96
D. R. SPARKS, A. R. MCKINNEY,
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M. W. FUGIT, 740 National Life Building

Reliance Automatic Dump Controller



This device is the only Automatic dump controller on the market that requires neither hand nor power to operate.

It causes the dump to settle down easily without the least jar or jerk and prevents accident to wagon or team.

This device is a small cylinder filled with cold tested oil in which travels a piston which is attached to the front end of the dump. The motion of the dump is controlled by the forcing of this oil through a regulating valve, which can be adjusted to suit operator.

Equip your dumps with them and avoid accident in the handling of the coming crops.
Shipped on trial to responsible parties.
Write us for particulars and price.

RELIANCE CONSTRUCTION CO
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MILL OWNERS'
MUTUAL FIRE INSURANCE
COMPANY

DES MOINES, IOWA

ORGANIZED 1875

Insures Mills, Elevators, Warehouses and contents.

Net Cash Assets, \$ 266,243.81
Losses Paid, - 1,339,403.60
Saved to Policy Holders, \$ 1,752,149.12

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HESS=DRIED CORN

Dried with warm air. Cooled with fresh air in a **HESS DRIER**.

Best for Shipping

Best for Storing

Best for Milling

HESS-DRIED CORN is normal in all respects. It will germinate strongly, and its milling qualities are improved. The treatment of HESS DRYING sweetens it, removes all odors, and by driving out all excess moisture, prevents heating, and makes it safe for shipping or for storing indefinitely.

Sold by many leading grain dealers throughout the U. S. A free list of these dealers will be supplied on request.

Hess Warming & Ventilating Co.

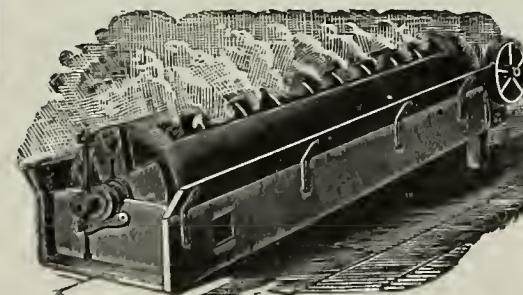
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Insurance on Elevators and Grain!

26 Years of Successful Business

We Have--Paid Losses \$1,766,407.89. Total Assets \$2,211,030.03. Net Cash Surplus \$367,263.93.
Michigan Millers Mutual Fire Insurance Co.
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SEE THAT YOUR
CONTRACTS CALL FOR



THE
CUTLER
STEAM
DRYER

SOLD BY ALL MILL FURNISHERS

Not an Experiment. In successful use 25 years drying
CORN MEAL AND HOMINY,
BREWERS' GRITS AND MEAL,
BUCKWHEAT, RICE AND
ALL CEREAL PRODUCTS.

ALSO SAND, COAL DUST, GRAPHITE, CLAY AND ORES

Automatic in operation, requiring no attention. Double
the capacity of any other Dryer sold for same price.

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THE ALBERT DICKINSON CO.

.....DEALERS IN.....

GRASS SEEDS, CLOVERS, FLAX SEED, LAWN GRASS, BEANS,
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THE NEW CYCLONE 1905 DUST COLLECTOR



"The per cent of loss saved by the '1905' Cyclone over the old Cyclone is from 71.2% to 80%. These losses are due to dust collector friction and take into consideration nothing but the collector." — *The Mechanical Eng. Dept., University of Michigan.*

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We
Build
Any
Size or
Capacity



For Driving Around Corners

For the largest drives employed in factory and mill practice, for small drives, for drives of large or short centers, in or out of doors, for vertical or horizontal, quarter-turn or cross drives, "American" Transmission Rope is the cheapest, the most efficient, the most economical and the most reliable of all known means for transmitting power.

It will pay you to write for a copy of our "Blue Book of Rope Transmission."

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Don't Get a "Choke" in Your Profits

Do you know you are only using one-half your REAL elevating capacity?
Do you know that there is a way by which you can positively prevent any possibility of a choke, a way which will pay for itself in a very short time by doubling your elevating capacity at LESS than your present expense?

The Hall Non-Chokable Boot

IS THE SOLUTION

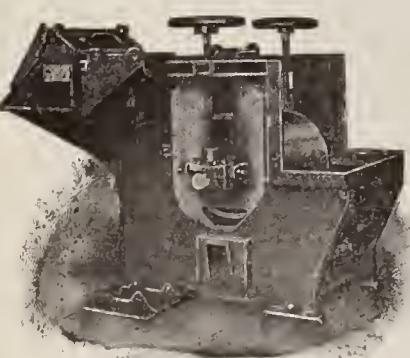
It fills your cups heaping full always.

It absolutely prevents Chokes in the Boot

It saves the wages of a feed gate attendant. It is absolutely automatic in action, as it is built on perfect and simple scientific principles, and cannot get out of order.

Write for Catalogue To-day

Our new catalogue just issued tells the whole story. It fully and clearly illustrates and describes every detail of the construction and operation of the Hall Non-Chokable Boots. A quarter of an hour spent in reading the catalogue will bring big dividends. A postal card will bring it.



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We will ship the Hall Non-Chokable Boot to any elevator owner on free trial. Set it up in your plant. Try it thoroughly. If it does not do all that we claim for it and more, return it at our expense. Remember we guarantee the Hall Non-Chokable Boot in every respect.

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Progressive Grain Men

Are interested in all phases of the grain business, the milling as well as the marketing of grain. They aim to keep in touch with the consuming trade and know what becomes of their grain in the markets of the world. Such men find the

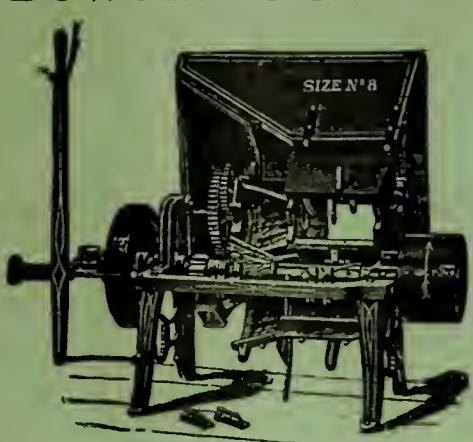
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a big help because it fully covers the business of milling wheat and other cereals.

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We will send the American Elevator and Grain Trade and American Miller to one address for one year at the combination price of \$2.50. Send in your subscription now.

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(Sold with or without sacking elevator)

It CRUSHES ear corn (with or without shucks) and GRINDS *all kinds* small grain and KAFFIR IN THE HEAD. Has CONICAL shaped GRINDERS, DIFFERENT FROM ALL OTHERS. RUNS LIGHT. Can run EMPTY WITHOUT INJURY. Ahead of rolls or stones in speed and quality of work.

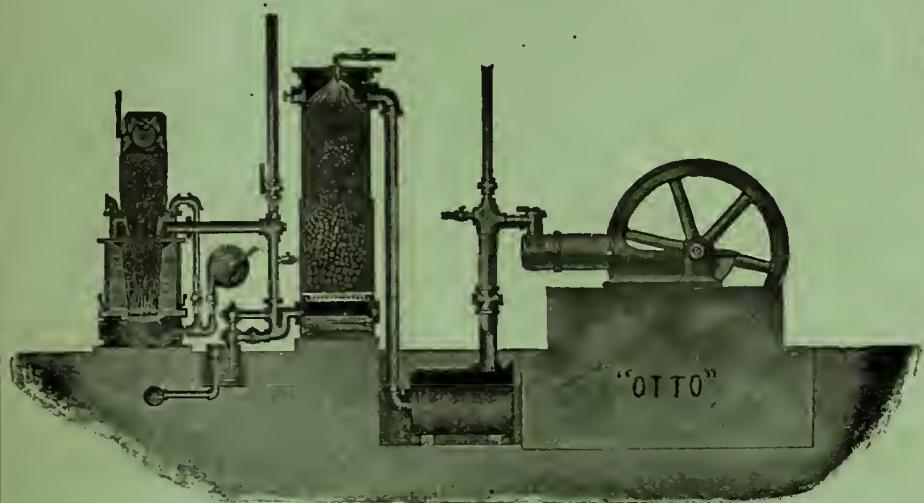
YOU NEED a mill now. QUIT THINKING about it. COMMENCE to investigate. Give US a chance and we'll tell you WHY we think ours is the best.

SEVEN SIZES : 2 to 25 H. P.
Circular sent for the asking.

Drive pulley overhung. Belts to it from any direction.
Makes complete independent outfit.

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The U. S. GOVERNMENT paid this company a big compliment when it selected the "OTTO" Engine for use in making fuel tests at the Jamestown Exposition.

The Jury of Awards also proved its fitness for its task when it AWARDED the "OTTO" the GOLD MEDAL.

The "OTTO" has won FIRST PRIZE at every large Exposition held in this country since the Centennial in '76.

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WEST ALLIS, WISCONSIN.

Detachable Chain Belting,
Malleable Elevator Buckets,

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BE SURE
To equip your Grain Elevator
Building with our light self-
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Strong and substantially
made.
INEXPENSIVE, QUICK
No more work climbing
stairs. Cost no more than
stairways and take up one-
quarter the room.
Correspondence invited.
SIDNEY ELEVATOR MFG. CO.
Sole Manufacturers SIDNEY, OHIO

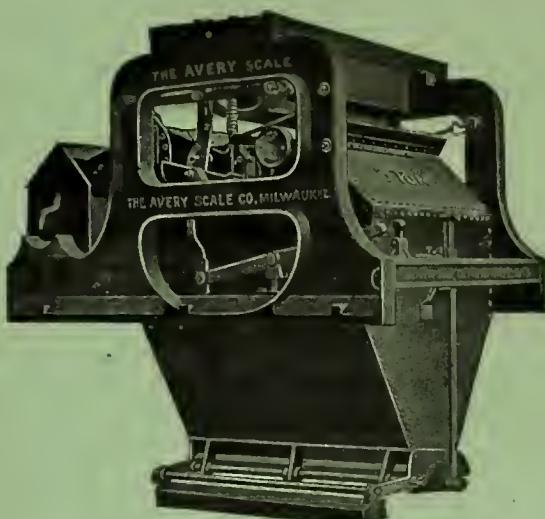
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OF 800 Bushels of Wheat?

At Gypsum City we can not weigh our wheat and have to take destination weights. At this point in handling 41,000 bushels

WE ARE SHORT SOME 800 BUSHELS OF GRAIN

The above is from a letter from the Salina Produce Co., Salina, Kan. In the same letter they write:



SINCE WE INSTALLED
OUR AUTOMATIC
SCALE AT LONGFORD
OUR SHORTAGE OF
WHEAT HAS NOT
EXCEEDED

1/8 of 1%.

IF YOU ARE AFFECTED
BY THE "SHORTAGE"
QUESTION, write for par-
ticulars of

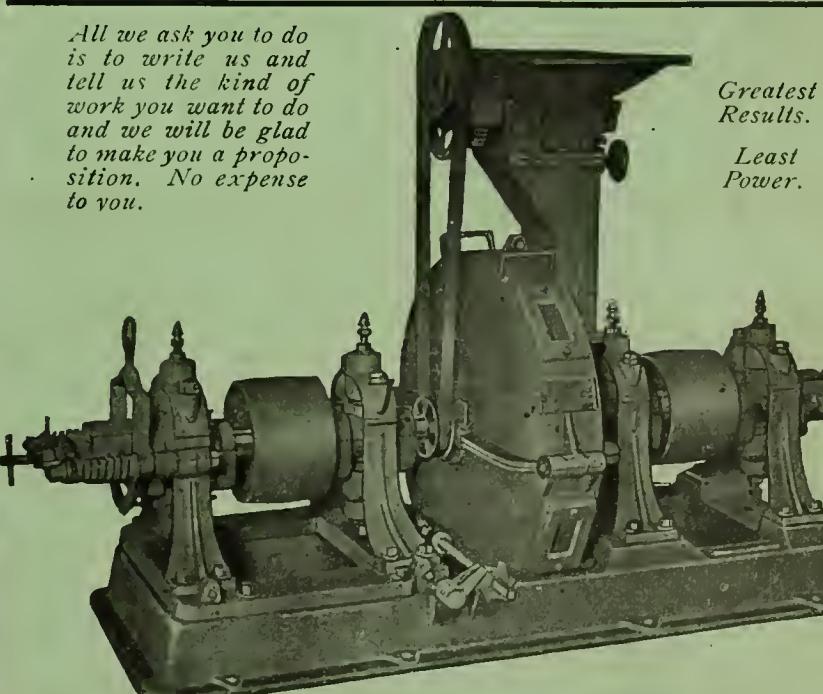
AVERY AUTOMATIC SCALES

ASK FOR CATALOGUE H

AVERY SCALE CO., - North Milwaukee, Wis.

SCIENTIFIC Attrition Mills

All we ask you to do
is to write us and
tell us the kind of
work you want to do
and we will be glad
to make you a proposi-
tion. No expense
to you.



Greatest
Results.

Least
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Built for FAST, FINE GRINDING. Grinds Corn,
Chop Feed, Bran, Offal, Screenings, Small Grain
and a great variety of other products.

Our new Catalogue is ready and we will be pleased to send you a copy.

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OUR OPEN-JACKET CYLINDER TYPE
Gasoline, Gas, Kerosene, Alcohol

STATIONARIES, PORTABLES, PUMPING OUTFITS, HOISTERS
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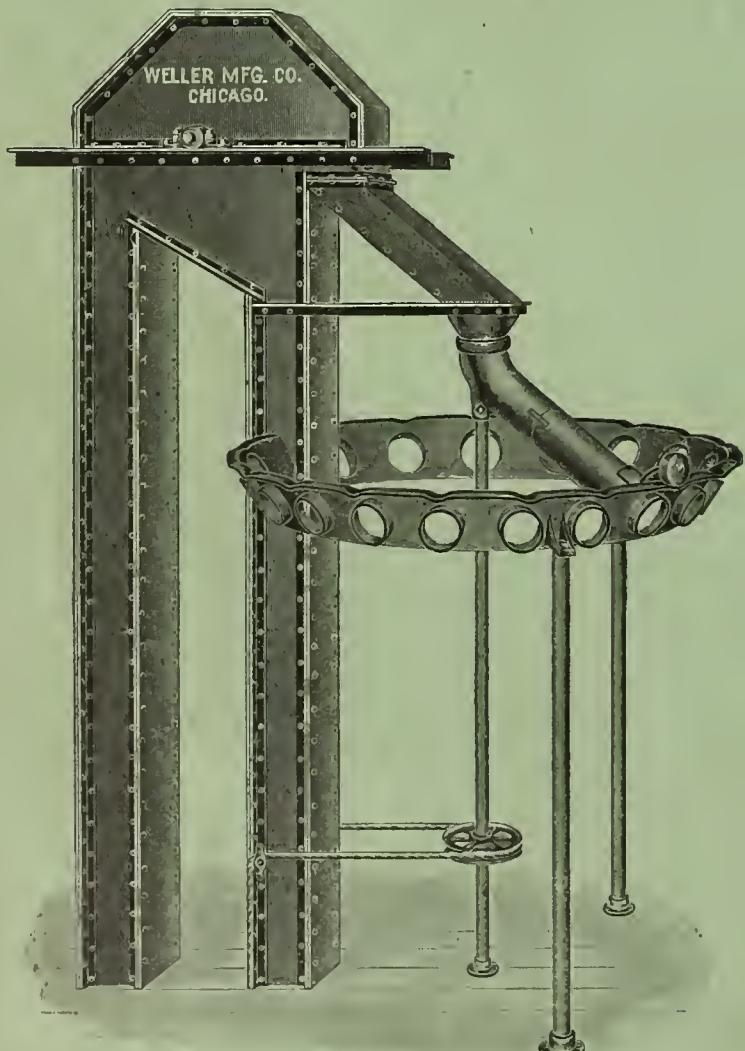
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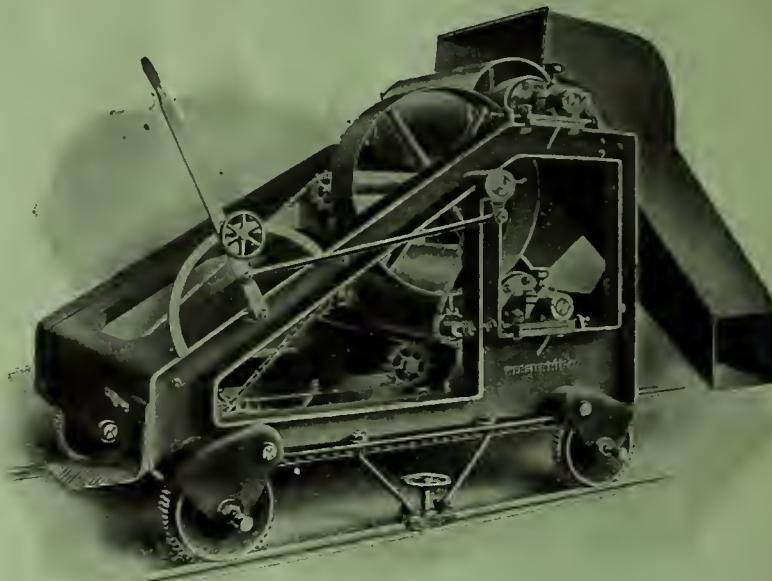
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For GRAIN ELEVATORS
and FLOUR MILLS



Improved Tripper.

We manufacture complete and up-to-date equipments and have furnished many of the largest elevators in the country with our specialties. Write for Catalog No. 30.

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Sole manufacturer of DAY'S Patented Dust Collectors and Fuel Feeders; also manufacturer of Dust Collecting Systems.
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If you need a Dust Collecting System, a rearrangement of your old Dust System, or an Exhauster Fan, write us.

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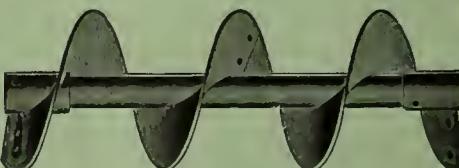
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